Arkansas OUT of DOORS



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Whether you have an apartment balcony or a 10-acre farm, a schoolyard or a business park, or anything in between, everyone can create a welcoming haven for local wildlife.



When you certify your wildlife garden with National Wildlife Federation, it is also counted towards the Million Pollinator Garden Challenge. Your application processing fee helps NWF increase declining habitat for bees, butterflies, birds and amphibians, and other habitat nationwide!

Certify your wildlife habitat at www.nwf.org/Garden-for-Wildlife/

TABLE OF CONTENTS Summer 2022

Cover illustration by Avery Henley of Batesville High School





- **6** Welcoming Terri Lane as Executive Director of the AWF
- 7 Connecting Underrepresented Youth with STEM Career Opportunities
- 8 Grassland Conservation Legislation
- 2022 Wildlife of Arkansas Student Art Contest Winners
- 14 The amazing and mysterious American Eel
- **18** BORN TO FISH...or not?
- **22** Arkansas Wild Kids Owls in Arkansas



ARKANSAS WILDLIFE FEDERATION PRESIDENT'S MESSAGE

We open this edition with great news. Terri Lane has been hired as AWF's new Executive Director. She brings a lifetime of conservation experience and ethics to the Federation. Most recently, Terri served as the Executive Director of the Northwest Arkansas Land Trust. We are excited to have her on board and are looking forward to the new direction of AWF under her leadership.

When you get this, summer will be wrapping up. I hope you have enjoyed some time outdoors in our great state. There is nothing like going to the White River at dusk and having that soothing river breeze cool you down. Or taking a hike to one of the many waterfalls with your pets and watching them splash in the water. Steve "Wildman" Wilson shares some stories about the importance of taking your family and children fishing. My life has many memories of fishing with my dad, my uncle Joel and my grandfather. Taking a kid fishing is a memory that will be cherished for your and their lifetimes.

The AWF Wildlife of Arkansas Youth Art contest never ceases to amaze me. I am a total sucker for wildlife art, much to the chagrin of my wife. This month we highlight all the winners from the 2022 contest and congratulate Avery Hensley for taking home 1st place in 11th grade and overall Best in Show with his colored pencil sketch, The Overlook. It pictures bobwhite quail in a natural setting, and it is fantastic.

On Capitol Hill, we are hoping that Congress wraps up the Recovering America's Wildlife Act. Please thank Senator

Boozman for his continued support of the bill. Another bill to watch for is the North American Grasslands Conservation Act. This bill would provide needed funding to landowners for re-establishing grasslands which in turn helps wildlife thrive, such as the bobwhite quail and monarch butterfly.

Johnny Carol Sain is back with stories about hunting crawdads. For many, this is a summer pastime and for others crawdads are a must for trout fishing. Brown trout especially love crawdads. And check out the article about the Summer STEM Connections program at UofA Monticello. This pilot program connected underrepresented students to career and degree opportunities in the wildlife conservation, forestry management and animal science.

If you all are not following the AWF on Facebook, please check it out. And none of our work would be possible without the contributions from members and donors throughout the year. We thank you all!

"For in the true nature of things, if we rightly consider, every green tree is far more glorious than if it were made of gold and silver."

Martin Luther King Jr.

Charles S. Buckner, III (Trey)
President

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Arkansas Wildlife Federation Mission Statement

To advocate for sustainable use of Arkansas' wildlife habitats and natural resources for future generations.



Arkansas OUT of DOORS

OFFICIAL PUBLICATION OF THE ARKANSAS WILDLIFE FEDERATION

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EXECUTIVE DIRECTOR

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Welcoming Terri Lane as Executive Director of the Arkansas Wildlife Federation

The Arkansas Wildlife Federation is excited to announce the hiring of Terri Lane as its Executive Director/CEO. Lane will be leading a comprehensive rebuilding and relaunching of the organization, now in its 86th year.

"I'm super excited to help write the next chapter for this historic conservation organization," said Lane. "Building on a past foundation that was established by previous leaders and dedicated board members, there is so much potential for AWF to serve as an educator, convener, and advocate toward the protection of our unique Arkansas wildlife and their habitats. I look forward to being part of that important work."

Lane has a track record for organizational development and conservation leadership. For the previous decade, she helmed the Northwest Arkansas Land Trust (NWALT). Under her leadership, NWALT became the first accredited local land trust in the state, permanently protected over 6,000 acres of land across 40 properties in Northwest Arkansas, opened five public access preserves, and provided conservation education programs to thousands of students and lifelong learners.

The relaunch of AWF will include strategic planning, the expansion of its statewide board of directors, and the unveiling of a new website, educational resources, and initia-



tives to establish AWF as an independent voice for Arkansas wildlife.

"The Arkansas Wildlife Federation is entering a new and exciting chapter," says Trey Buckner, President of the Board of Directors. "Terri brings experience, a passion for the mission, and a vision for the future of the organization. We're excited to welcome her and look forward to seeing where she can take us. We invite you to follow along."





Students from Altheimer, AR dissect sharks and frogs and look inside a turtle with Dr. Traci Hudson in the UofA Pine Bluff Biology Department.

Connecting Underrepresented Youth with STEM Career Opportunities

According to a recent study done by Pew Research Center, "Black and Hispanic workers remain underrepresented in the science, technology, engineering and math (STEM) workforce compared with their share of all workers." Additionally, "Black students are especially underrepresented in math, engineering, and physical science degree programs."

Through a partnership with the University of Arkansas (UofA) at Monticello, the Summer STEM Connections pilot program was launched in June 2022. The program led 9th through 12th grade students through a three-week classroom and hands-on learning experience about STEM degrees and careers in their local area. Although the program will accept any student, the goal was to engage students of color who are underrepresented in STEM careers. All the participants in this summer's program were students from nearby Wilmot, AR.

"More often, rural communities like Wilmot have little to no career development opportunities and are overlooked by government financial rollouts," said Brenette Wilder, president and founder of the non-profit Kansas City Teen Summit (KCTS) which organizes the Summer STEM Connections program.

Inspired by her own career as a chemical engineer, Wilder founded the program as a way to provide exposure to STEM careers for underserved and underrepresented youth. Wilder is a University of Arkansas graduate with a degree in chemical engineering. She and her husband are from southeastern Arkansas and now reside in Kansas City. The initial summer program was started in 2004 with partner universities in the Kansas City area. As a way to give back to the communities where she and her husband grew up, she started a camp at UofA Pine Bluff and now the pilot program at UofA Monticello.

Continued on page 17...



Dr. Michael Blazier, Dean, College of Forestry, Agriculture, and Natural Resources teaches students about forest management.



Dr. Hamdi Zurqani teaches students about remote sensing and geospatial information science.



Brenette Wilder, founder of the Summer STEM Connections program (right) and Dr. Michael Blazier, Dean, UofA Monticello, College of Forestry, Agriculture, and Natural Resources (left)



Park/Saeger Woods Conservation Area in Kansas City, MO.



Written by Sullivan Barth, National Wildlife Federation | Photos by William Dark Photography at www.williamdark.com

The North American Grasslands Conservation Act will help farmers, ranchers, Tribal Nations, and others work to collaboratively address the immense challenges facing America's grasslands and prairies — one of the fastest disappearing ecosystems in the world.

The legislation, introduced by U.S. Senator Ron Wyden (D-Ore.), and co-sponsored by Sens. Michael Bennet (D-Colo.) and Amy Klobuchar (D-Minn.), will invest \$290 million in voluntary initiatives to collaboratively conserve and restore native grasslands to support working ranch lands and to help recover wildlife like the Western meadowlark and monarch butterflies and safeguard this vital habitat for future generations.

"Grasslands are North America's most imperiled ecosystem and without urgent, collaborative, conservation efforts, this essential habitat and the lives and livelihoods it supports are at risk. Just as we've restored millions of acres of wetlands through the North American Wetlands Conservation Act and the Duck Stamp, the North American Grasslands Act will mark a sea change in how we conserve, restore, and revitalize our prairies for ranchers, hunters, and wildlife alike," said Collin O'Mara, president and CEO of the National Wildlife Federation. "Thank you to

Senator Wyden for this legislation that brings long overdue and much needed resources to what remains of this great American landscape that holds such importance for the future of both ranchers and wildlife. Congress should take up this landmark bill as soon as possible."

Grasslands provide essential habitat for wildlife, support the outdoor recreation economy of Arkansas, and protect clean drinking water and healthy aquatic ecosystems. Grasslands, however, are shrinking every year as we lose acre after acre to land conversion and development. The collaborative approach of the North American Grasslands Act ensures that hunters, land owners, farmers, and ranchers alike can all work together to revive this endangered landscape.

Grasslands and sagebrush shrub-steppe are some of the most threatened ecosystems in the world. More than 70 percent of America's tallgrass, mixed grass, and shortgrass prairies have vanished. According to recent research¹, the United States lost 1.1 million acres of grasslands every year from 2008 through 2016. Additionally, less than 1 percent of Arkansas grasslands and prairies remain intact according to Bob Whitley at the University of Arkansas Research and Economic Development office.



This habitat loss has caused total grassland bird populations to decline by more than 40 percent since 1966. Some species, such as the Western meadowlark, teeter at the edge of extinction. Species that had been economically significant throughout American history, like the bobwhite quail, have seen declines of nearly 85 percent in the last half-century.

Grasslands are a natural climate solution, and healthy working grasslands not only provide soil, water, and wildlife benefits, but they sequester a significant amount of carbon. Researchers have found that the loss of carbon when grasslands are converted to cropland is equivalent to the greenhouse gas emissions from around 27 million cars on the road every year.

The \$290 million from the North American Grasslands Conservation Act would directly invest in voluntary grassland and sagebrush restoration and conservation projects. such as incentivizing prescribed burns, managing invasive species, grazing management training and grassland conservation easements. Additionally, the bill would provide at least \$29 million in dedicated funding opportunities for tribal nations to engage in grasslands conservation and include tribal representation on the program's governing council.

This legislation would create, for the first time, a North American Grasslands Conservation Strategy to identify key areas of grasslands at risk of degradation, establish goals for increasing grasslands acreage and develop baseline inventories of wildlife species throughout grasslands habitat.

To learn more about the North American Grasslands Conservation Act, visit https://actforgrasslands.org/

1. Lark, T.J., Spawn, S.A., Bougie, M. et al. Cropland expansion in the United States produces marginal yields at high costs to wildlife. Nat Commun 11, 4295 (2020). https://doi.org/10.1038/ s41467-020-18045-z





2022 Wildlife of Arkansas Student Art Contest Winners

The Arkansas Wildlife Federation (AWF) and Creative Ideas are thrilled to continue hosting the annual Wildlife of Arkansas Student Art Contest promoting wildlife education through the arts. The Wildlife of Arkansas competition was held online with more than 500 students from kindergarten through 12th grade submitting images of their artwork and a panel of jurors selecting the winning pieces of art. The winning artwork from each grade is on display at the virtual art exhibit at www. arwild.org. The competition is supported through an education grant from the Arkansas Game and Fish Commission (AGFC) and the National Wildlife Federation. Thank you to our volunteers, Jim Taylor, Geralyn Hoey and Mandy Clark, for your commitment to making this program a success. Special thank you to our jurors for their time and expertise reviewing and selecting the winners for this year's contest.

2022 Jurors

Bryan Winfred Massey Sr.

Departmental Chair, Professor of Art-Sculpture/3D Design, University of Central Arkansas

Jessie Hornbrook

Associate Professor of Art, Printmaking, University of Central Arkansas

Liz Smith

Associate Chair, Associate Professor of Art, Ceramics, University of Central Arkansas

Juror Statement from Associate Professor Liz Smith, UCA, Department of Art & Design

It was an honor to be part of the juror's panel for this year's Wildlife of Arkansas Student Art Contest. This was my first time serving on this panel and I was so impressed with the quality and diversity of the work submitted at every grade level. From the joyful expression and creative interpretation of the work from the early grades to the technical skill and thoughtful compositions of the upper grades it was a pleasure to view. These wonderful images, some playful, some serene and some ominous, speak to the myriad ways in which we can experience the world around us, that all interpretations of a similar subject matter can



be at once so different and yet so true speaks to each of our individual strengths and also adds to our collective understanding. Art allows us to express ourselves as makers but perhaps more importantly builds a library of ideas and experiences through which to see and understand the world and how others experience it. It takes courage to share one's vision, for this I salute the young artists who put their work out for the world to see but it also takes courage to be a viewer to look at work that challenges you, maybe even makes you a little uncomfortable. To quote one of my favorite artists, Alberto Giacommetti, "The object of art is not to reproduce reality, but to create a reality of the same intensity." From the joyful to the fierce, to the somber these artists took the time to share their emotions, ideas and love for the natural world. I am thankful to have been able to experience the work of these young artists because of how it made me feel and think about our place in and indeed our responsibility to the natural world.

KINDERGARTEN

1st Place - Red Fox and Blue Bird by MILLIE MAE BEYER

2nd place - Raccoon Mom and Baby by Joseph Brasfield
3rd place - Beetle Battle by Jaxson Ogle
Hon. Mention - Wildlife Is Beauty of Earth by Diyaa Karthikeyan

IST GRADE

1st place - Fall at the River by JASPER HANKINS

2nd place - Deer, Dear by Silvan Lohakare 3rd place - Wildflowers by Ramsey Matthews Hon. Mention - Camping in the Woods by Joseph Tucker

2ND GRADE

1st place - Black Bear Cave by ERIN HANKINS

2nd place - Diamondback Rattlesnake by Louie Urena 3rd place - Rainbow Fish by September Cook Hon. Mention - Wolf in Wolf by Madelyn Lee

3RD GRADE

1st place - Prince of the Forest by GRIFFIN TAYLOR

2nd place - Roadrunner by Aubree Pickens
3rd place - Surprised Raccoon by Jonathan Willcuts
Hon. Mention - Bird place by Riselee Hunt

4TH GRADE

1st place - Arkansas Blue Bird by ELAINA SMITH

2nd place - The Firefly Forest by Ava Tyler 3rd place - Raccoon by Tripp Patterson Hon. Mention - Raccoon by Jaxon Williams

5TH GRADE

1st place - Portrait of a Fox **by KINSLEY PEARSON**

2nd place - Arkansas Magnified by Chase Vandergriff 3rd place - Through the Green Arch by Lotus-Pearle Ross Hon. Mention - Raccoon on the Town by Aria Adams

6TH GRADE

1st place - Woody the Wood Duck by MADISON JANSEN

2nd place - Lazy Otter by Adriahna Edens 3rd place - The Fox Legend by Zeta Stallcup Hon. Mention - Winter Cardinal by Emilee Cross

7TH GRADE

1st place - Green Heron by CARTER BOLES

2nd place - Somewhere Over the Rainbow by Madelyn Honeycutt
3rd place - Black Widow by Dailee Caldwell
Hon. Mention - Sitting cardinal by Meriel Garrett

8TH GRADE

1st place - Monarchs on a Milkweed **by JAYLEE COVEY**

2nd place - Arachnophobia by Hunter Jones 3rd place - Blue Heron by Anna Dallas Hon. Mention - Coyote by Sarah Peterson Hon. Mention 2 - Top of the Magnolia by Nora Buchanan

9TH GRADE

1st place - Trees by the Dock by TIFFANY ZHANG

2nd place - A Silent Creek by Norah Vinson 3rd place - Thinking Bird by Ruth Mangham Hon. Mention - Reflected by Macy James

10TH GRADE

1st place - Le Cerf Mort by YEVGENIYA NOMMESEN

2nd place - The Didelphidae by Emma Adcock 3rd place - Midnight Coyote by Delaney Richards Hon. Mention - 3 Purple Irises by Hayden Echols

11TH GRADE

1st place & Best Of Show- The Overlook by AVERY HENLEY

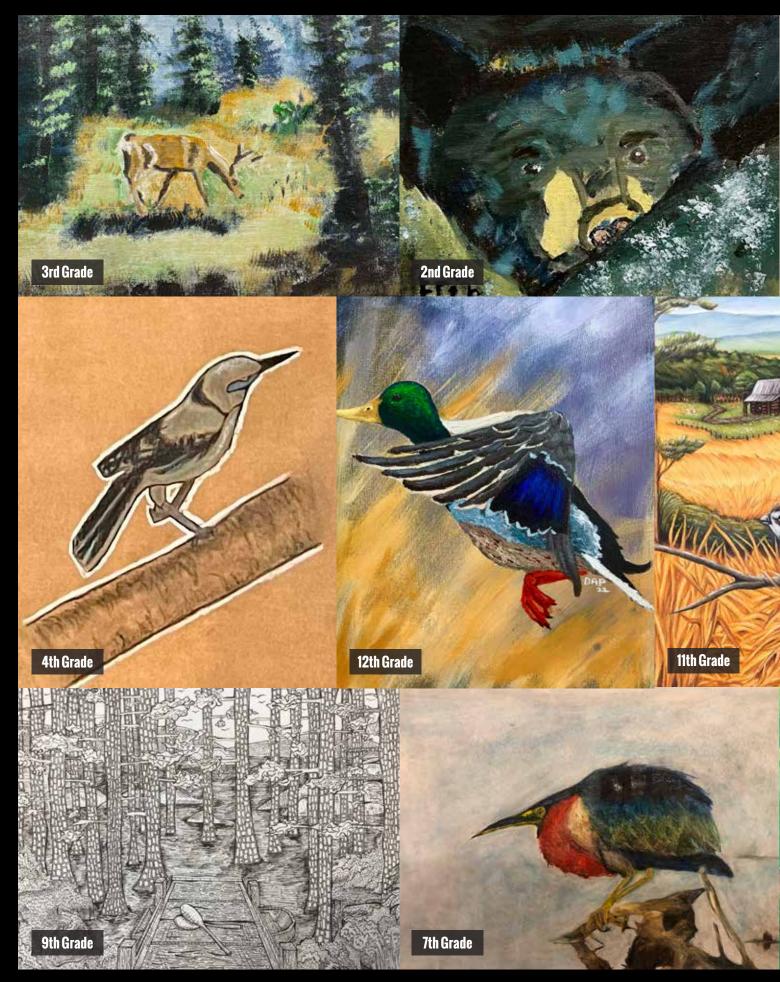
2nd place - Wildlife Of The Natural State by Hannah Billingslea
3rd place - Rabid by Sadie Akers
Hon. Mention - Red Light by Kourtney Pence
Hon. Mention 2 - - A golden first day by Lexie Tozer

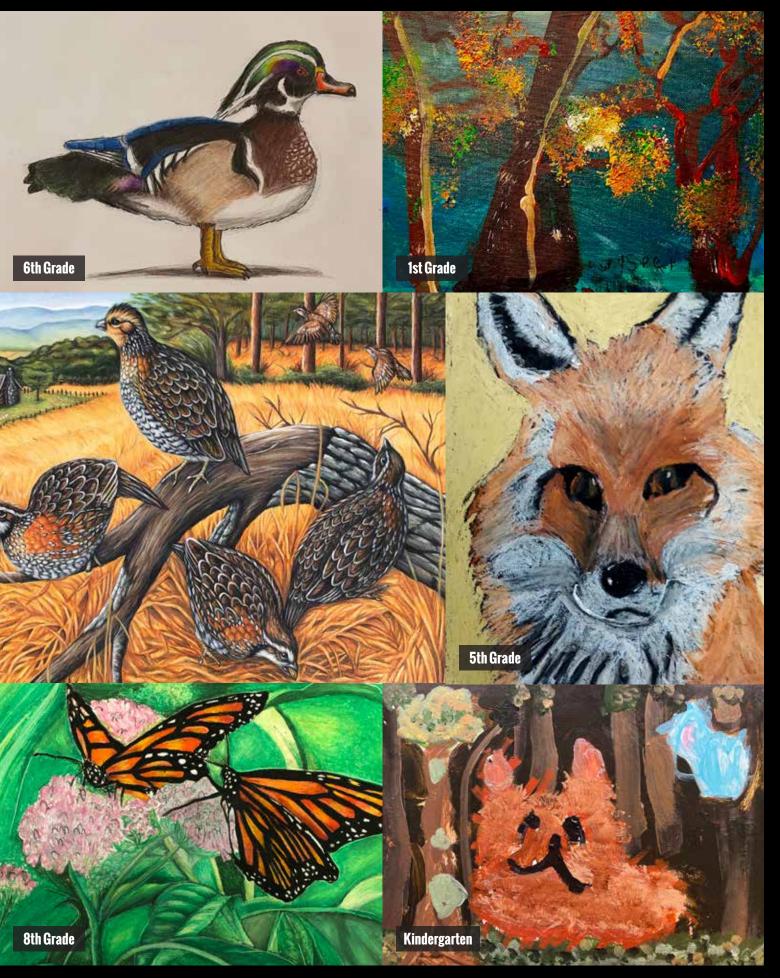
12TH GRADE

1st place - Mallard in Flight by DENVER PETTIT

2nd place - *Tree frog* by Johnathon O'Connor 3rd place - *Migrating Butterfly* by Malerie Wilson Hon. Mention - *Raccoon in pencil* by Emily Talley













Chestnut Lamprey (Ichthyomyzon castaneus)

The amazing and mysterious American Eel

Story and photos by Dustin Lynch

As an aquatic biologist working in Arkansas, I am contacted from time to time by someone claiming to have seen or caught an eel. While eels do indeed inhabit some Arkansas waterways, the state is also home to several other aquatic animals with long, serpentine bodies that are often mistaken for eels. Like eels, all of these species are just as interesting in their own right, but knowing a little more about eels and some of their look-alikes will help you to better identify which aquatic creature you've seen.

The American Eel (Anguilla rostrata) is a bony fish with paired pectoral fins, a single gill slit on either side of the head, and two pairs of nostrils - a small round pair in front of the eyes and a more prominent tubular pair at the front of the snout. It can reach a maximum size of 5 feet in length and around 8 pounds in weight, although the record for Arkansas is about 3 feet and 5 pounds. Eels are generalist carnivores that feed primarily at night where they are aided in search of prey by a keen sense of smell. Younger, smaller eels in Arkansas mostly consume aquatic insects and smaller crustaceans, while adults feed largely on fish and crayfish.

American Eel (Anguilla rostrata) (4)

Eels have an amazing life history – they exhibit a life cycle known as catadromy. Catadromous fish spawn in marine habitats and migrate into freshwaters to live. Catadromy is the opposite of anadromy, a life cycle in which fish spawn in freshwaters and

migrate to the ocean to live -you may be familiar with anadromy because salmon exhibit it. American Eels spawn in the Atlantic Ocean and are thought to breed in the depths of a region known as the Sargasso Sea, although the precise location of their breeding grounds is still unknown.

Eels begin life as transparent, planktonic larvae known as leptocephali. Planktonic larvae are creatures that float in a body of water. Leptocephali drift at sea, passively transported into coastal waters over the course of 7-12 months, at which point they metamorphose into small, translucent, coastal forms known as "glass eels." Growing and becoming pigmented as they move closer to shore, glass eels then transform into "elvers," which more closely resemble the familiar adult form, only much smaller. Elvers journey up-river, eventually transforming into stages known as "yellow eels" and finally into the sexually reproductive "silver eels" that will eventually make the journey back out to sea. Eels are semelparous, meaning they die after a single breeding event. In Arkansas, it is thought that nearly all eels are females, as the males tend not to migrate as far from the coasts. They spend many years (perhaps as many as 25) feeding and attaining maturity before migrating back to the ocean to complete their life cycle.

Arkansas's eels are primarily inhabitants of larger rivers and are unlikely to be encountered in other aquatic habitats. The proliferation of dams and locks on many of our state's large rivers severely impacts the ability of eels to carry out the migrations necessary to complete their life cycle. There are practices that can facilitate better fish passage of eels and other migratory aquatic species, including installation of structures known as "eel ladders," which incorporate some system of



chutes, ramps and steps with substrates that add traction to facilitate eels in climbing over barriers.

The Arkansas Game and Fish Commission (AGFC), with assistance from other partners, is currently conducting a study of the movements of American Eels in our state's rivers. This project is being led by AGFC's River and Stream Program Supervisor, Jeff Quinn. As part of this study, eels are captured and then surgically implanted with acoustic tags before being released back at the point of capture. This allows researchers to monitor their movements up and downstream. The project, now just a few years underway, has already provided valuable insights about these remarkable fish. Hopefully, this project will ultimately inform management decisions to ensure that these fish will continue swimming in Arkansas's rivers for years to come.

Lampreys are aquatic creatures that are sometimes mistaken for eels. These jawless fish are part of a lineage so primitive that they are considered more distantly related to other fish than other fish are to humans! A lamprey's most notable feature is its mouth. Instead of having hinged jaws, a lamprey's mouth consists of a cup-shaped suction disk full of rasping teeth. In addition to its unique mouth structure, a lamprey can be distinguished from an eel by its complete lack of scales, lack of any paired fins, single nostril on top of the head, presence of seven prominent round external gill slits and entirely cartilaginous skeleton.

While lampreys are notorious for being parasitic to fish, only some species exhibit this lifestyle. Others are completely non-parasitic - of the five species that occur in Arkansas, two are parasitic and three are non-parasitic. It is important to note that all five of the lamprey species that have been documented here are native to The Natural State.

All lampreys begin life as filter-feeding larvae known as ammocoetes, which resemble adults in overall body shape, but lack the sucking disk, abrasive teeth or large eyes of adult lampreys. An ammocoete spends most of its time burrowing into the stream bed in areas with soft sand or silt, using its narrow, hood-like mouth to strain microorganisms and organic material from the water. After a few years, the ammocoete will make a dramatic transformation into an adult lamprey. It will develop large eyes and the large oral sucking disk, as well as other major changes to its internal organs and systems. Most species of lamprey occurring in Arkansas are small; the larger species may attain a maximum size of a bit more than a foot in length.

Adult non-parasitic lampreys do not eat, as they have greatly reduced, non-functioning digestive tracts. Instead, they live off fat reserves, accumulated during the larval stage for energy and nutrients, only long enough to spawn once before dying. Like eels, lampreys exhibit semelparity, i.e. only one reproductive episode before death.

Some of the other creatures commonly mistaken for eels aren't fish at all. Arkansas is home to two species of large, elongated, fully aquatic salamanders that superficially resemble eels.

Story continued on page 19...





By Johnny Carrol Sain

he most humble of waters call to me. Chocolate milk-colored seeps and tinkling rocky rivulets no wider than a long stride are the most persuasive. I know the denizens of those tiny waters, and they call as well. They whisper of a time that seems not long ago when all I wanted could be found at the end of a long dirt driveway or just beyond the next creek riffle.

I wanted crawdads.

A fondness for crawdads might seem odd for a boy born and raised in the River Valley and southern Ozarks of west-central Arkansas — crawdads are, after all, the totem of Louisiana folks — but maybe a Natural State upbringing is why my appreciation for crawdads goes beyond the palate. I caught thousands before I ate my first one. I caught them for a closer look in an old pickle jar. I watched the swimmerets churning under their tails. I watched the multiple mouthparts in action as I fed them worms. I watched them because they fascinated me. And then I set them free. While untold summer hours of my childhood were spent ankle-deep in a ditch, creek, or pond, there is no crawdad-catching genesis in my story. Like Mom and Dad, the Razorbacks, and the Bible, crawdads are immemorial.

As I recall, the winding ditches alongside Bells Chapel Road near Atkins carried the aroma of quintessential rural Arkansas summer — a complex mix of fresh-cut hay, mimosa trees, manure, and mud. And they were crammed with crawdads. Cousin Robert and I made daily expeditions through the Johnson grass and tickseed hunting for pools of relative clarity and unsuspecting crawdads. With quarry sighted, the crawling stalk began until we were close enough to slip a hand toward the segmented tail — always the tail because even the smallest claws were menacing. Success was a flapping mad dad pulled from the water with our fingers safely behind those pinchers. Our crawdad catching repertoire was basic, and a capture was rare. But during my ninth summer of life, we would learn new methods peculiar to different environments

and situations. And my relationship with the crawdads evolved as well.

The biggest revelation was when our Uncle Terry demonstrated that a crawdad pinch didn't hurt all that much. As he followed us down the ditch one hot summer day, Uncle Terry asked why we passed the deep holes because they surely held some whopper crawdads. We told him about the feared "blood pincher" crawdads, the big ones with red-tipped claws that could nip a plug from our fingers. He guffawed, said something about no nephews of his being scared of a crawdad, then proceeded to reach shoulder-deep into a nefarious looking mud hole and feel around with predatory focus emanating from his eyes to his digits. Soon, a wide

smile cracked through his deliberate expression. A profound sense of awe clutched my gut as he lifted his hand from the mud. Falling globs of muck revealed a giant claw clasping his pinky finger like a miniature vise, with Uncle Terry's grinning mug as a backdrop to the dangling crawdad. The deep-hole crawdads saw no mercy afterward.

Catching moving-water crawdads, though, like the ones we found in the Illinois Bayou and its tributaries near Hector, was almost mystical. With the flip of a rock I could witness magic as the silt vanished in crystal current and a form materialized: a brick-red crawdad with fire-tipped claws highlighted in teal, a dazzling beast as compared to the plainbrown ditch variety. My young mind had never reckoned there were different types of these creatures, but here was distinction brought about through eons of change ushered by tectonics and water. Vibrant yet cryptic shades grew in intensity with every second as the water cleared. And then there was this magnificent and alien creature within my grasp, an ancient soul holding secrets that I would never be old enough to know but desperately wanted to learn.

I still yearn for those secrets.

The summers of youth have since evaporated, leaving only muddy trails of memories but the crawdads are still part of my soggy, warm-weather pursuits. Inspired by Hemingway's "Big Two-Hearted River," I've fished for smallmouth bass with crawdads caught as needed for bait. I've also pushed aside the smallmouth and enjoyed the crawdad as a meal with my daughters, a nephew and a niece helping to fill the pot on camping trips. After all, passing on crawdad-catching tactics to the next generation is a family tradition.

Crawdads gave me a sense of place, a more intimate understanding of my home and the natural forces toiling beyond our perception that shape nature. They've helped me hold on to a sense of wonder every time I see semi-feral puddles or a wild backwoods creek. But mostly, they take me back to a simpler time when my only concerns were pinched fingers and getting back to Granny's while supper was still warm.

...cont. from page 7

have an interest in it."

"When I was growing up, STEM was a subject that kids were not introduced to in a hands-on way. We want our kids to be exposed to STEM opportunities both inside and outside the classroom. If I can do it, they can do it," Wilder said. "And I want them to see that STEM is fun. It doesn't have to be seen as too tech or too challenging. They can do it if they

The 2022 Summer STEM experience provided students opportunities to learn about youth empowerment. community beautification, volunteerism, and careers in STEM. With a theme of "Forest, wildlife, and livestock management in a changing climate." the students spent each day interacting and engaging with professors to learn



Dr. Don White, wildlife biology professor, used video, stills, and graphics to demonstrate how research scientists study bears and elk using satellite tracking collars.

about forestry, wildlife management, animal husbandry, and climate science. Students will continue their volunteer work this fall by installing a wildlife habitat garden at a community park in Wilmot, Arkansas.

The Summer STEM Connections program has had great success at the UofA Pine Bluff and the University of Missouri, Kansas City, for many years. Although the STEM Connections camp is in its pilot phase at the University of Arkansas at Monticello, the hope is that the program will continue to serve the students of southeast Arkansas for years to come. The program in Monticello was organized by Brenette Wilder, president and founder of Kansas City Teen Summit, sponsored by the National Wildlife Federation and Arkansas Wildlife Federation, and in partnership with the Univ. of Arkansas at Monticello, College of Forestry, Agriculture, and Natural Resources.

For more information on the Kansas City Teen Summit, contact Brenette Wilder at wilderbrenette@gmail.com or 816-287-2167.

Visit the Kansas City Teen Summit Facebook page to see more photos from all the 2022 program sites and learn more about the UofA Monticello program at this video https://youtu.be/i5OZ-2YvaW0

Photos and Video Producer- Lon W. Tegels, UofA Monticello, College of Forestry, Agriculture, and Natural Re-

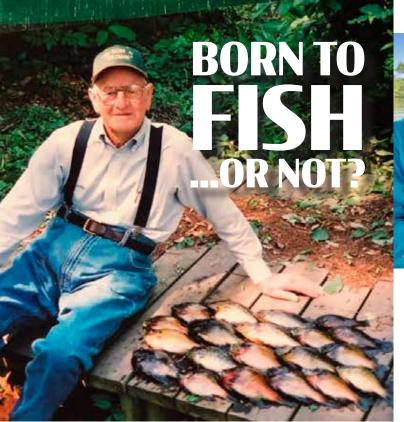
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By Steve "Wildman" Wilson

Well, I really don't know when it all started. In fact, someone asked me one time "how old were you when you went fishing for the very first time?" My honest answer was "I can't remember when I DIDN'T go fishing"...it was just a way of life for me growing up. Thanks to a mom and dad who took me on literally thousands of bream fishing trips to Bear Skin Lake near Scott, Arkansas. Still today my favorite combination for catching blue gills is a flat bottom boat, fly rod and a bucket of crickets. It just doesn't get any better than that.

And one of my most favorite things to do is share the joy of fishing with those who were not as fortunate as I was growing up. I spent most of my 37+ years at Arkansas Game and Fish Commission telling others how to, when to and where to go catch fish and actually got to show them how to on my tv show "Talkin' Outdoors" that aired for 20 years on numerous local networks.

It warms my heart when folks come up to me today and

tell me they watched my show when they were growing up. Although that makes me feel old, it's OK. Hopefully I can take full responsibility for getting a few others hooked on fishing like I am.

I have ventured into other types of fishing since growing up mostly due to producing the "Talkin' Outdoors" tv show. I have fished for trout, catfish, crappie, largemouth bass, stripers, walleye and my new favorite (next to bream fishing) is fishing for smallmouth bass in Arkansas' Ozark streams.

But some of my fondest memories has to be those bream fishing trips with my



dad. Dad passed away in 2011 at age 95. His birthday was June 13 which always fell close to Father's Day so for many years I would produce a bream fishing show with dad to air that week. I think it is still one of the most popular shows we aired in the 20 years of "Talkin' Outdoors".

Bream fishing runs deep in our family as I still take my dad's 92 year old sister, Mary Wray bream fishing on his birthday each year in his honor. My brother Charlie will go with me as long as I paddle the boat and take his fish off and bait his hook for him. I have tried real hard to keep the fishing flame burning in my family through the years. My daughter Celeste didn't have much trouble catching the fishing bug and still goes fishing with me at age 42. She and I immediately recruited her husband Nathan Molsbee to the sport. He caught on quickly and now has his own boat and a garage full of rods and reels and other tackle.

However, maybe my biggest challenge of all is hooking my 12 year old grandson Luke on fishing. His age group has so many choices of ways to spend their time - computer games, videos, YouTube, social media, not to mention soccer and other team sports. This is a challenge I never expected. I never dreamed he wouldn't be BORN TO FISH. Now hear me loud and clear, I LOVE HIM WITH ALL MY HEART and HE LOVES ME WITH ALL HIS HEART. We just have different natural interests and that's OK. That is something you are born with and nobody can or should change that other than yourself. We both work hard at mak-

ing our differences work. I sit and play video games or watch YouTube with him for a while, and he spends time with me every now and then on the lake throwing a Whopper Plopper trying to lure in a big ole largemouth bass. Little does he know that every time he casts that lure I'm hoping he not only catches a fish but actually catches the fever of fishing for a lifetime.

Someday all we will have are memories! I just hope my family can remember me the way I remembered my dad and say "DON'T CRY BECAUSE IT'S OVER...SMILE BECAUSE IT HAPPENED."



...EELS continued from page 15

Amphiumas (Family Amphiumidae) and sirens (Family Sirenidae) are each represented by a single species occurring in Arkansas. They can be distinguished from eels by the presence of tiny vestigial legs (rather than fins) and from one another by how many pairs they have - amphiumas have both forelimbs and hindlimbs, while sirens have only forelimbs. While many other salamanders begin life as aquatic larvae and metamorphose into terrestrial adults, amphiumas and sirens are aquatic throughout their lives.

The Three-toed Amphiuma (Amphiuma tridactylum) has small forelimbs and hindlimbs which appear comically small for its body. Its lidless eyes are greatly reduced, as it is primarily a nocturnal species that relies on other senses to hunt, such as a well-developed lateral line that can detect movement in the water. This is our state's longest salamander species, reaching a maximum length of 3 1/2 feet.

Amphiumas are secretive and nocturnal, rarely leaving the water except during or after heavy rainstorms. They are inhabitants of swamps, oxbows, sloughs, ditches and backwaters in lowland areas of the state. They feed on a wide variety of prey, including worms, aquatic insects, crayfish and small fish which they attack both by striking and by utilizing suction created by their powerful jaws to pull prey into their mouths. Occasionally amphiumas are caught by anglers, who often refer to them as "congo (or conger) eels" due to their eel-like appearance.

The Lesser Siren (Siren intermedia) is Arkansas's other species of large eel-like salamander. Sirens can be distinguished from amphiumas by the presence of external gills (the feathery structures on the side of the head), and by the presence of only weak, rudimentary forelimbs but no hindlimbs. Sirens can reach a maximum size of just over 2 feet in length. While only one species of siren occurs in Arkansas, there are four other members of the family.

Sirens can be found in ditches, ponds, sloughs and swamps, usually



in areas with plentiful aquatic vegetation. Like amphiumas, they are primarilv nocturnal. Sirens feed on worms. insect larvae, snails, tadpoles and crustaceans such as crayfish. While they rarely leave the water, they can endure drought conditions by burrowing down into the mud and excreting a cocoon of mucous around themselves to withstand drying. Sirens emit clicking sounds to communicate with other sirens, and can make a screeching sound when handled.

Next time you spot an "eel" in Arkansas, take a closer look. It might be the real deal, but it also might be some other equally fascinating creature that calls the waters of The Natural State home!

Dustin Lynch is the ANHC's aquatic ecologist. He has a doctorate in biological sciences from the University of Arkansas at Fayetteville and a master's degree in zoology from Oklahoma State University.

The Arkansas Natural Heritage Commission was established in 1973 to identify and protect the state's remaining high-quality natural communities. To protect the "best of the last," the Commission manages a System of 78 Natural Areas that encompasses more than 73.000 acres and maintains data on the status of rare species and natural communities in Arkansas.

The Arkansas Department of Parks, Heritage and Tourism protects and promotes our state's natural, cultural and historic assets, contributing to a thriving economy and high quality of life. It is made up of three divisions: Arkansas State Parks, Arkansas Heritage and Arkansas Tourism. Stacy Hurst serves as the cabinet secretary for the department.



ARKANSAS WILDLIFE

News-of-Note



Attack on conservation funding

If passed, the RETURN bill, H.R. 8167, would undermine wildlife and fish conservation in the United States as we know it. The Pittman-Robertson (PR) and Dingell-Johnson (DJ) Acts provide funding to state wildlife agencies from the sales of guns, ammunition, and fishing equipment. The RETURN Act would repeal these bills and would be detrimental to wildlife across the country. In 1937, AWF worked with other groups from around the country in the passage of this monumental conservation bill supporting wildlife management in every state. Fortunately, none of the Arkansas congressional delegation have co-sponsored the RETURN bill. AWF hopes that other states will follow their lead but with 51 cosponsors already (five have withdrawn because of pushback from wildlife conservation constituents), AWF will continue to keep your eye on this one.

IUCN listing of monarch

The International Union of Conservation of Nature's (IUCN) addition of the migratory monarch butterfly (Danaus plexippus plexippus) to the Red List of Threatened Species is further validation that this imperiled species is in desperate need of protection and recovery. Migratory monarch butterflies have long been plagued by habitat destruction and fragmentation affecting their breeding grounds, migratory stopover habitats, and overwintering areas. This is exacerbated by the impacts of climate change and invasive tropical milkweed. Legislation such as the Monarch Action, Recovery, and Conservation of Habitat Act of 2021 (Monarch Act 2021) and the Recovering America's Wildlife Act is imperative to making sure we increase resources needed to protect this iconic species and ensure future populations of pollinators thrive. People can help the migratory monarch butterfly by:

- · Gardening for wildlife by planting native milkweed and native nectar plants that will support monarch caterpillars and monarch adults, respectively.
- Encouraging western and eastern local leaders to join the Mayors' Monarch Pledge.
- · Engaging in community conservation actions such as native habitat restoration, education and outreach and local policy changes to benefit monarch butterflies.
- · Enrolling in monarch conservation, community-based science opportunities in local communities.



AGFC unveils new strategic plan

At the July AGFC meeting, Director Austin Booth presented the new strategic plan for the agency. He highlighted key points in the agency's strategic plan, including actions and measurable goals to improve habitat on land and water, increase public access, recruit and retain top-level professionals and continue to recruit and inform outdoors enthusiasts to take advantage of the wealth of resources available in The Natural State. To learn more about the agency's goals in the new plan, visit https://www.agfc.com/ en/news/2022/07/21/agfc-sharpens-conservation-plan/

2023 Farm Bill hearing in Jonesboro

As a member of the Senate Committee on Agriculture, Nutrition, and Forestry, Senator John Boozman hosted a field hearing in Jonesboro to hear from Arkansas agricultural producers, industry stakeholders, and rural community supporters about the important programs provided by the Farm Bill. Amanda Brogdon, Arkansas Wildlife Federation Vice President, attended the hearing and AWF submitted joint testimony with National Wildlife Federation and other groups about the importance of strong agriculture conservation provisions to providing economic opportunities for thriving communities and wildlife habitat through the 2023 Farm Bill. AWF thanks Senator Boozman for his leadership to ensure the bill includes strong conservation provisions that protect our wildlife habitat, soil, and water.

The following highlights some important conservation priorities for the 2023 Farm Bill:

- 1. Double Baseline Funding for Farm Bill Conservation **Programs**
- 2. Prevent Conversion of Natural Habitats through a Nationwide Sodsaver Provision

- 3. Improve Water Quality and Quantity by Scaling Adoption of Voluntary Conservation
- 4. Improve Equity in the Delivery of Conservation Program Funds and Technical Assistance
- 5. Better Align Crop Insurance with Conservation Practices that Reduce Risk and Save Money
- 6. Conserve Wetlands and Highly Erodible land through Farm Bill Conservation Programs and Conservation **Compliance Provisions**
- 7. Improve Wildlife, Climate, and Agricultural Outcomes in Existing Conservation Programs
- 8. Address PFAS, an Ongoing Threat to Agricultural Land, Wildlife Habitat, and Human Health

Recovering America's Wildlife Act passes House!!

On June 14th, the U.S. House of Representatives passed the Recovering America's Wildlife Act! This is a watershed moment for species conservation and underscores the broad, bipartisan support for ensuring wildlife endure and thrive for future generations. The Recovering America's Wildlife Act will prevent extinctions and restore wildlife species by investing \$1.4 billion each year in state, territorial, and Tribal species-conservation projects. Arkansas would receive more than \$15 million annually. The legislation will prevent vulnerable species from declining to the point where they need the protections of the federal Endangered Species Act while providing a significant new source of funding for species that already are federally protected. The wildlife recovery efforts funded by the Recovering America's Wildlife Act will be guided by the congressionally-mandated State Wildlife Action Plans, which identify specific, science-based strategies to restore the populations of species of greatest conservation need. The Arkansas plan identifies 377 species that need conservation assistance. The expectation is that the full Senate will take up the bill in early fall. AWF thanks Senator Boozman for his continued leadership to move it across the finish line.









Owls in Arkansas

By Lola Perritt

I've always enjoyed the sounds of the night in Arkansas. My favorite sound is the sound of owls. Owls are found throughout Arkansas and are heard more often than seen since most are nocturnal. Depending on the source, Barn Owls, Barred Owls, Great Horned Owls, and Screech Owls are here year round. Long-Eared Owls, Northern Saw-Whet Owls, and Short-Eared Owls are winter visitors from the northern parts of the US and Canada. One source listed Burrowing Owls and Snowy Owls as winter visitors but extremely rare.

All owls are predators and feed on a wide variety of foods from insects to larger prey including birds and mammals. They use their keen eyesight, sharp talons and beaks to capture and eat prey. As with most raptors, the females are larger than the males. Another unique feature is their bottom eyelid opens and closes, not the top eyelid.

Barn Owls are the most widely distributed owls in the world and can be found everywhere except the polar regions. They are easily identified by their cinnamon and cream feathers and heart-shaped face. They are called "barn owls" because they often nest in barns and other manmade structures where they feed on mice and rats. They are rarely seen and are on the decline in Arkansas.

Barred Owls are found throughout the state and are probably the best known owl in Arkansas for two reasons: They often hunt at dawn and dusk and are easily seen and for their distinctive call, "Who cooks for you?" Who cooks for you all?" They also have other calls that are territorial calls. Barred Owls are the second largest owl found in Arkansas and have few predators except for the Great Horned Owl.

The Great Horned Owl is the largest owl in Arkansas. It eats a variety of prey and is the only bird known to kill and eat skunks on a regular basis. They often prey on other raptors including Red-Tailed Hawks and Barred Owls. They are easily identified by their "horns" which are not horns but tufts of feathers atop their heads and for their large amber colored eyes. They are probably the most photographed owl species.

Screech Owls are the smallest of the permanent owl species in the state. These small birds mate for life and are found all over the state. Their camouflage makes them difficult to see but their call makes them very identifiable. They eat insects, rodents and small songbirds.

Take some time to research these magnificent creatures. There are a multitude of resources including videos and audio recordings of owls available on the internet. An excellent resource is Bird Feeder Hub at birdfeederhub.com/owlsinarkansas/



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½ Page	\$195	\$183	\$172
½ Page	\$399	\$375	\$353
Full Page	\$795	\$747	\$702
Inside Front cover	\$925	\$870	\$817
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