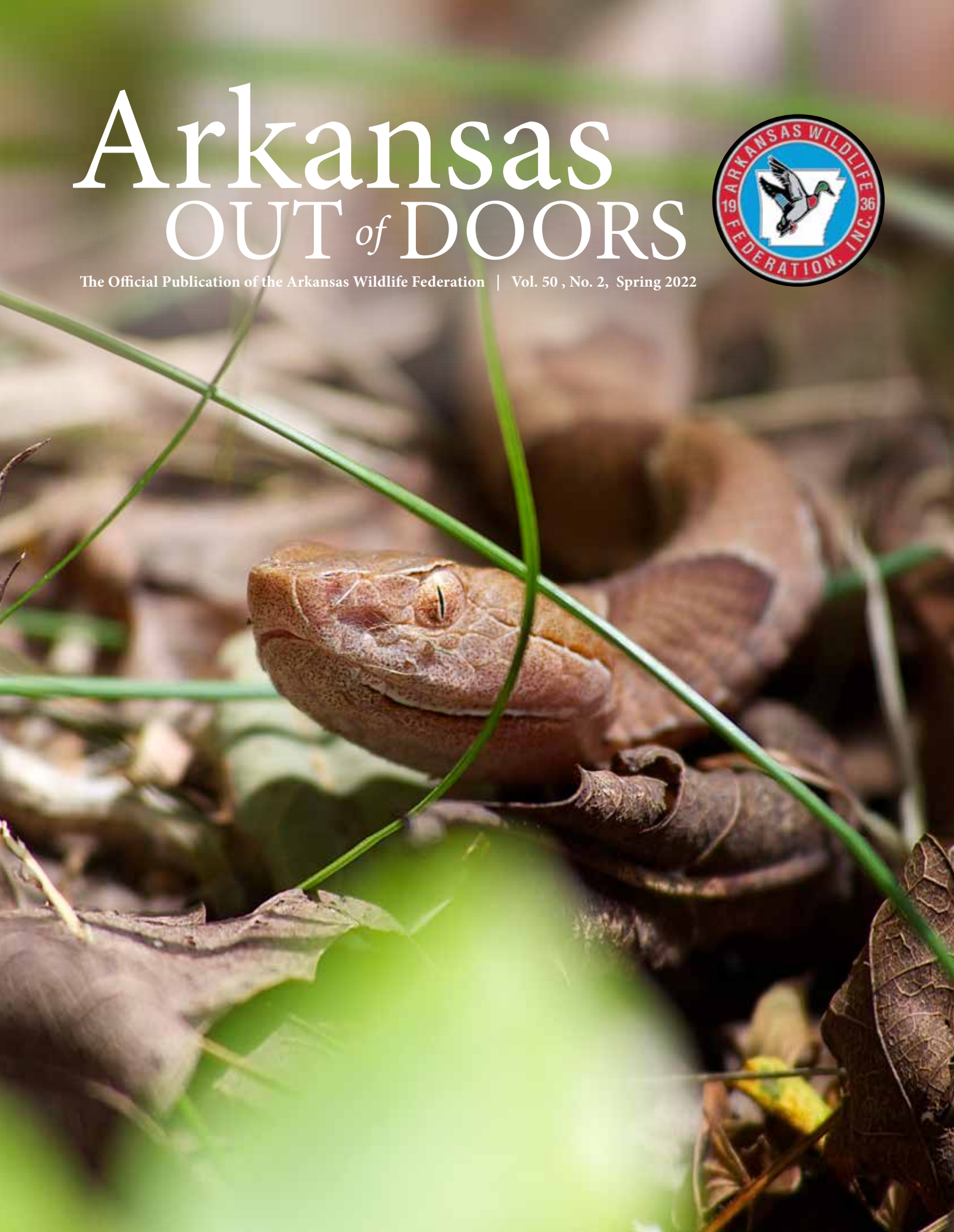


# Arkansas OUT *of* DOORS

The Official Publication of the Arkansas Wildlife Federation | Vol. 50 , No. 2, Spring 2022







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Cover photo provided by Johnny Sain  
of an eastern copperhead



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## ARKANSAS WILDLIFE FEDERATION PRESIDENT'S MESSAGE

2022 marks the 50th anniversary of this publication, Arkansas Out of Doors (AOOD). Throughout those 50 years, the AOOD magazine has been an important tool to inform the public and lawmakers about conservation efforts and important policy issues in our Natural State and beyond. The AWF Board would like to thank Chris Zimmerman for his dedication and hard work on designing the magazine for the majority of his career.

When you get this, it will be near summer. As I write, I have laid out all my turkey hunting gear and I am hopeful of hearing the vaunted thunder chicken when season opens. I have been fortunate to have been trout fishing several times this year already and we did manage to catch some. As much as I have gone fishing, I do know it is always helpful to get tips from the master of fishing, Steve Filipek, and he provides just that in this issue as he shares some insights about spring fishing.

Spring means its garden time in Arkansas. I hauled many bags of dirt in last week for my wife's garden. AR Natural Heritage Commission's senior botanist, Theo Whitsell, shares how he created his native garden at home and even as a plant expert had a few missteps along the way. Candice Annen talks about how she made some dire mistakes creating her monarch and pollinator gardens and shares how you might inadvertently be doing the same thing.

On capitol hill, Congress is working toward wrapping up Recovering America's Wildlife Act. Please take the time to contact your local House and Senate members to encourage their support. Thank you Senator Boozman for

your continued leadership of the bill. Also, the America the Beautiful initiative is a new effort to protect important wildlife habitats around the country. You can learn about the effort in a reprint of a National Wildlife Federation article.

Johnny Carrol Sain is back with a great article about snakes. If there is one thing I have learned serving on this board, there are several people who love snakes. Lori Monday at the AGFC loves them. One of our past board members and super volunteers, Lola Perritt, has several of them. Kudos to you guys. I will watch them from a distance and enjoy. Speaking of Lola, she shares in the Wild Kids section about what's in your soil and the importance of the tiny creatures crawling in it.

If you all are not following the AWF on Facebook, please do. And if you are not a member of AWF, visit [www.arwild.org](http://www.arwild.org). We would love your support to continue our efforts to advocate for sustainable use of Arkansas' wildlife habitats and natural resources for future generations.

*"The ultimate test of man's conscience may be his willingness to sacrifice something today for the future generations whose words of thanks will not be heard,"*

Gaylord Nelson

Charles S. Buckner, III (Trey)  
President



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### Arkansas Wildlife Federation Mission Statement

*To promote conservation, responsible management and sustainable use of Arkansas' fish, wildlife, habitat, natural resources and outdoor recreational opportunities through education and advocacy.*



## Arkansas OUT of DOORS

OFFICIAL PUBLICATION OF THE  
ARKANSAS WILDLIFE FEDERATION

### PRESIDENT

Charles S. Buckner, III

### EDITOR

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Chris Zimmerman

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# Sometimes... smaller can be better

Story & photos by: Steve Filipek,  
AWF Region 4 Director

It's Spring in Arkansas which means crazy weather, Wye Mountain daffodils, streams and rivers revitalizing themselves and fishing. Now obviously there's a lot more going on than that like weddings, baseball, rain, gardening, camping, cookouts, and numerous types of animals moving around and so on but now, we're talking fishing. Fishing is really nice because "real" fishing gets you outdoors in a wonderful time of year in the Natural State. Many of Arkansas' 243 fish species spawn in the spring including most of Arkansas' sport species (excluding brown trout and a few others).

Anglers, having slowed down during winter, often take more time chasing the larger specimens during this season. Many of these larger fish are females with males often times the smaller of the sexes. Larger bait and lures catch larger fish, right?! Well, sometimes and even often times but not all the time. It's easy to site Rip Collins 40 pound 4 0unce brown trout (remember, a fall spawner) that he caught on a 1/32 ounce olive green marabou jig. Yep, the world record brown trout at the time caught with an ul-

tralight rod and reel on 4-pound test. Sure, you say, but that was a trout and they often feed on small insects and such. Well, I was able to take a replica of that fish home for a public presentation and let me tell ya, it was larger than any salmon I've caught out in the Pacific Ocean and I've caught some nice chinooks out

there. That fish was almost the size of either of our sons at the time.

Getting back to normal sized fish, I will though use a trout anglers term and remember to "match the hatch". Matching the hatch in a non-trout fishery is to match the kind and size of the forage in the water you are fishing. This has seasonal components with it. So, if you are fishing in late winter or early spring the shad forage base of a lake may have been hammered pretty hard by then. Therefore, a





bait or lure resembling a crayfish, like a red crankbait, may be a better bet than only throwing shad-colored crankbaits. In addition, smaller sizes of several kinds of baits or lures may coax the fish to bite rather than a 5" swimbait. Yes I've caught a near 7-pound largemouth bass on a 10" black Creme worm but that was at night during the summer on a highly pressured Corp of Engineers reservoir.



As an example of small bait being successful, I've been able to catch really nice crappie greater than 15" on 2-inch golden shiners. That was after throwing crankbaits and horsehead jigs and larger minnows and trolling all of the previous as well with no luck. So, after throwing all that hardware and larger minnows at them, I finally went with the smallest of the crappie minnows I had bought and just started drift fishing with the wind, which can be strong that time of year. Almost immediately and without much help from my electronics, which is only a 7-inch Lowrance basic fish finder, my 10-foot rod doubled over and after a long 55 seconds netted a 15" crappie. Once I "matched" the smaller forage that the fish were feeding on, fishing success picked up. I had 3 rods out at the time at different water depths, no not a formal Spider rig but a poor man's version. Checking all the rods over and over again visually, became kinda boring until...the longest crappie stick I have at 12 feet, tried to slide under the boat and into the water and the fight was on. After at least 2 minutes which is a long time for a real fish fight in open water, I got the large sow of a largemouth bass near the surface. I picked up my net which I always keep

handy and led the bass in to the net and with both hands on it lifted the bass into my boat. Whew, I have measuring rulers screwed into one side of the boat and as the photo here shows, that largemouth measured 21 inches and weighed in at 5.5 pounds...on a 2-inch minnow. I released her in good shape for a possible future meeting.

Previous to this trip, I have been doing a lot of winter lake fishing, probably because my duck hunting trips this season have not been too successful. Fishing in wintertime has steered me towards smaller baits and fishing them slower at times. Friends of mine helped me on this smaller bait crusade by showing me picture after picture of nice catches of bass, both largemouth and spotted on smaller finesse type worms. These are fished with an initial pull off the bottom and then letting it sink slowly to the bottom or even a shaky head retrieve has helped me catch more bass. Using smaller plastic worms and Wiggle Wart type lures, I've caught several 3 + pound bass and lost 2 or 3 five pounders. This is in addition to many 12-15 inch spotted and largemouth bass that sucked in the smaller lures (above). Color of the soft plastics depends on the water clarity and color of it as well. In the early spring, threadfin and gizzard shad spawns can be incredible and many of our native fish feed heavily on the tiny young of year shad. Lures like smaller CC spoons and road runners match the size of these smaller shad and you will have a lot more luck if you can throw lures that more closely resemble the prey of the fish you are after. So, go small when it works, go small when large is not getting it and just GO Fishing!





# GRAND VISION

*The ambitious America the Beautiful plan seeks to conserve and restore 30 percent of U.S. lands and waters by 2030*

Adapted from National Wildlife magazine's February–March 2022 issue, written by Brianna Randall

**The Biden–Harris administration's America the Beautiful initiative is an ambitious effort to conserve or restore at least 30 percent of U.S. lands and waters by 2030.** The initiative's goal goes well beyond protecting public lands—it also encourages improving stewardship practices on private agricultural lands, restoring fire-prone forests, repairing ailing streams and conserving coastal and marine habitats.

Although the United States is a global conservation leader with more intact ecosystems than most countries, the need to safeguard our remaining nature is clear: Analyses conducted by NatureServe of the nation's best-studied groups of plants and animals—including birds, mammals, fish, reptiles, amphibians and vascular plants—have determined that about a third of all U.S. species are at risk of extinction. The country also faces a growing inequity in people's access to nature. According to the Trust for Public Land's 2021 ParkScore Index, some 100 million Americans do not have a park within a 10-minute walk of their homes.

To address such challenges, President Biden signed an Executive Order in early 2021 directing federal agencies to develop an inclusive and collaborative vision for conserving 30 percent of U.S. lands and waters by 2030. But while the need for the effort—now known as the America the Beautiful initiative—may be clear, specifics remain vague. “This is a generational opportunity, and it's important to be strategic,” says NWF Chief Scientist Bruce Stein. “How do we create a well-represented, well-connected network of conserved lands and waters? And how do we make sure to manage these places in a way that they will persist into the future, particularly in the face of climate change?”

Stein helped the Federation develop three guiding science principles to inform federal agencies, partners and affiliates as they identify areas to target for the initiative: 1) Representation: incorporate the full array of species and ecosystem types; 2) Resilience: include sufficient space and multiple examples of each species and habitat to help nature cope with

and adapt to disturbances or stressors; and 3) Connectivity: maintain or restore linkages between remaining strongholds of natural habitat.

“From an implementation standpoint, the initiative should rely on and empower existing local and regional conservation and restoration initiatives, both on public and private lands,” says Stein. He points to ready-made priorities for protection created through ongoing collaborative efforts such as the Southeast Conservation Adaptation Strategy or Nature's Network in the Northeast. But without a dedicated funding source or targeted incentive programs, it's still unclear how the initiative's vision becomes reality.

Andrew Black, NWF Public Lands Field Director, believes that existing funding sources can be tapped, including the recently passed \$1 trillion infrastructure package, the Farm Bill's provisions to encourage stewardship on private lands and the \$900 million-per-year Land and Water Conservation Fund that helps the federal government, states and communities enact restoration and protection projects. “We have plenty of pathways to get this important work done,” says Black. “The key is to not lose sight of the goal: locally driven, equitable, collaborative conservation that helps communities and wildlife.”

## FOCUS ON NATURE-DEPRIVED COMMUNITIES

Equity is one of the most notable goals of America the Beautiful, which includes a historic commitment to ensure that 40 percent of federal investments in conservation or parks go to communities that lack access to nature. Unfortunately, many people nationwide lack easy access to clean water, shady spots and beautiful vistas—particularly those who live in low-income areas and people of color. A 2020 report co-authored by the Hispanic Access Foundation (HAF) and Center for American Progress found that 74 percent of all nonwhite families live in nature-deprived neighborhoods dominated by asphalt and concrete.



# AMERICA THE BEAUTIFUL

A vision for a 10-year, locally led and voluntary nationwide effort to restore and conserve America's lands, waters, and wildlife

## EIGHT PRINCIPLES OF THE AMERICA THE BEAUTIFUL INITIATIVE

Pursue a Collaborative and Inclusive Approach to Conservation	Conserve America's Lands and Waters for the Benefit of All People	Support Locally Led and Locally Designed Conservation Efforts	Honor Tribal Sovereignty and Support the Priorities of Tribal Nations	Pursue Conservation and Restoration Approaches That Create Jobs and Support Healthy Communities	Honor Private Property Rights and Support the Voluntary Stewardship Efforts of Private Landowners and Fishers	Use Science as a Guide	Build on Existing Tools and Strategies With an Emphasis on Flexibility and Adaptive Approaches
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A Year One report, an update on progress made to support locally led conservation and restoration efforts across the country during the first year of the America the Beautiful initiative, was published in December 2021.

[https://www.whitehouse.gov/wp-content/uploads/2021/12/AtB-Year-One-Report\\_.pdf](https://www.whitehouse.gov/wp-content/uploads/2021/12/AtB-Year-One-Report_.pdf)

At the same time, green and blue spaces are increasingly viewed as necessities rather than amenities, vital to our physical and mental health. Nature-deprived neighborhoods also tend to be places with worse air and water quality and greater vulnerability to heat, drought, floods or disease.

"We need to create more close-to-home outdoor opportunities for our communities of color and low-income neighborhoods," says Brenda Gallegos, conservation program associate at HAF, a national nonprofit organization that connects Latine communities with partners and opportunities that improve their lives, including creating a healthy natural environment. HAF also wants to ensure transparency and inclusivity. For America the Beautiful, this means hiring an equal representation of people of color in nature-related jobs, from trail building to park administration. "Often, people of color feel unsafe or unwelcome when using outdoor spaces, partly because they don't see people of color working in these spaces," says Gallegos.

### PROTECTING AND RESTORING OUR OCEANS

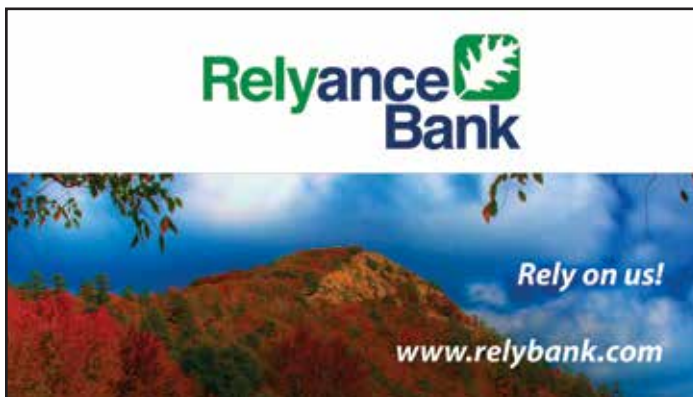
America the Beautiful does not overlook species-rich ocean habitats. Although 26 percent of U.S. marine waters already fall within marine protected areas, 98 percent of these are located near remote Pacific Islands. And only 3 percent of U.S. waters fall under the highest level of protection, where commercial fishing and other extractive activities are prohibited. Hoping to better balance ocean conservation across our

nation's diverse coastal and pelagic habitats, the initiative looks to include regional priorities for protecting valuable and at-risk marine resources.

But even with protected areas in place, like the Florida Keys National Marine Sanctuary, there still remains a host of threats, including heavy recreational use and commercial fishing, coral disease and damage, seagrass degradation, water pollution and sea level rise. NWF and its affiliate Florida Wildlife Federation are hoping to address these challenges by supporting efforts to increase protection in some areas and expand the sanctuary's boundaries, restore dying reefs and other ailing resources and update the protected area's management plan.

Collaborative, ground-up conservation are models for how the decades-long America the Beautiful initiative can succeed in conserving one-third of the vital lands and waters that sustain America's communities and wildlife. "We depend on nature for the water we drink, the air we breathe, the food we eat," says Black. "To protect our land, water and wildlife—and the cultural identity rooted within all three—we must work together to conserve at least 30 percent of the U.S. by 2030."

The National Wildlife Federation, through a unanimous vote by its 53 state and territorial affiliates (including the Arkansas Wildlife Federation) passed a resolution at its June 2021 annual meeting endorsing "this bold vision for conserving the nature of America."





# Forbidden

STORY & PHOTOS BY JOHNNY CARROL SAIN

## Serpent encounters are part of growing up in Arkansas.

For most folks, that first introduction likely happened in Sunday School as we learned that snakes once had legs and could speak before being driven onto their bellies and dumbstruck simply for offering Eve an option. Sure, the option was directly opposite what the Almighty had commanded, but I never viewed the snake as an archetype for evil. Maybe this was because I was forming another opinion about snakes before lessons in Genesis sunk into my young malleable mind.

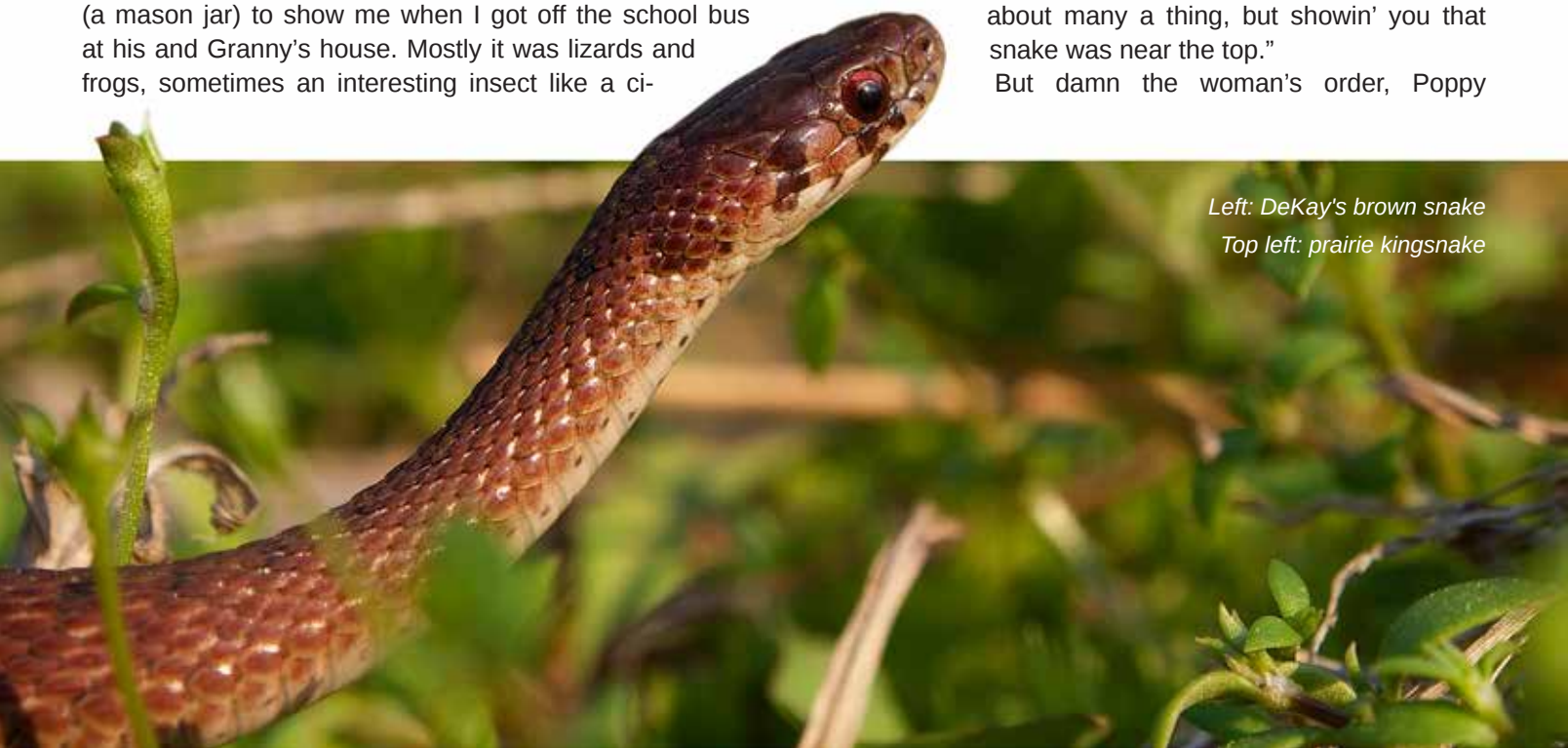
I had seen a few snakes in my early years, but my first real introduction to a serpent outside of church came at six years of age and was courtesy of my pigeon-toed, gruff-voiced grandfather. Poppy always had a critter under glass (a mason jar) to show me when I got off the school bus at his and Granny's house. Mostly it was lizards and frogs, sometimes an interesting insect like a ci-

cada, which we called a jar fly. But this time there was a rose-bellied, black-backed legless creature coiled around the jar's bottom. Poppy nor I knew it at the time, but it was a western wormsneak.

Even as Poppy explained that the snake was harmless, a low humming voltage tickled my spine and tightened my stomach. A distinct and delicious forbiddance was in the jar, literally. Poppy said that Granny was livid about the whole thing, to not talk about this at the dinner table or even mention it when we went inside for the evening. And, come to find out, she had indeed forbidden Poppy to show me the snake. As Granny told me years later: "I told him to take that thing back to the woods and kill it, to NOT tell you about.

Oh, I don't know why he did that. We fought about many a thing, but showin' you that snake was near the top."

But damn the woman's order, Poppy



Left: DeKay's brown snake  
Top left: prairie kingsnake



*“Even as Poppy explained that the snake was harmless, a low humming voltage tickled my spine and tightened my stomach. A distinct and delicious forbiddance was in the jar, literally.”*

showed me the snake and more. He gently poured the tiny loops onto his farm-thickened fingers and I watched it slither between his digits, its quick pink tongue tasting humid air. Poppy handled the delicate reptile with a gentleness that surprised me from a man I'd watched gut and clean piles of fish. As he talked about where he found it and how he caught it, the snake settled into his calm weathered hand looking like the picture of contentment. Then he said it was okay for me to touch it, but to be easy, to be careful. I did.

And my mind was opened.

I can't be sure about what the old man was thinking by showing his grandson how to identify, catch, respect, and enjoy snakes, but I like to imagine he wanted to pass down a sense of wonder and respect for all lives, even the lowliest, mixed with a smidgen of his subversive orneriness. If that was his plan, Poppy succeeded likely beyond his expectations and much to Granny's chagrin.

Since that time, I've been the weirdo snake advocate in any bunch. When folks on a hike run away, I run toward. Whenever I hear the rattle of a buzzing tail against dry leaves, my pulse quickens with anticipation rather than fear. I didn't see a need to tell my wife about my ophiophilist tendencies, and she went bonkers watching me chase down a watersnake for the first time. Her stammering near-hyperventilation put me in the awkward situation of having to choose between helping her sit down before shaky legs plopped her into the rocky creek or holding on to the snake and admiring more of its savage beauty. Proud to say I chose wisely. We're still married 24 years after the incident.

In spite of Poppy's lessons, I'm not sure why I feel a need to touch snakes. You can easily appreciate something, and especially a reptilian something, from afar. I don't know why the feel of serpentine muscles coiling with a quiet certainty around my hand is so intriguing, the cool smoothness of whispering scales so appealing. But through my teenage and young adult years, a nonvenomous snake within grasp was often gently captured, examined, admired, and then released unharmed — kingsnakes, ratsnakes, hognose, garter, ribbon, watersnakes, wormsakes, brownsakes, racers, red-bellied snakes, greensakes, and probably some I've forgotten.

*Story continued on page 15...*



# Don't get bit, but if you do...

There are arguments about whether snake phobia is a cultural phenomenon or part of human DNA, but regardless of the reasons for fear and loathing, it's overhyped. Snakes are shy creatures and integral parts of all Arkansas ecosystems.

Depending on whom you ask, Arkansas is home to 36-42 different species of snakes, but everyone agrees that only six are venomous. There are no verified “poisonous” snakes in Arkansas. Toxins delivered by injection are venom, while toxins delivered by handling or eating the creature are poison. Venomous snakes in Arkansas include the pit vipers, named for heat-sensing pits found near their eyes — timber, western diamondback, and pygmy rattlesnakes; copperheads and cottonmouths — and the coral snake, which is in the cobra family.

Coral snakes are easy to spot with their bright colors, called aposematic coloration, signaling this is a dangerous creature. The pit vipers feature cryptic camouflage but are identified by wide, triangular heads, broad stocky bodies, distinct markings, cat-like elliptical pupils, and, to me, they simply have a presence. Maybe there is something to that genetic fear theory because I seem to know intuitively that I'm looking at a venomous snake even before my brain has time to process the clues.

The best way to not get bit is to leave them alone. The overwhelming percentage of snake bite victims are folks who tried to kill, pester, or catch the snake. Don't try to kill them. Don't try to move them. And for the love of Pete, don't try to catch them. If you find a venomous snake near your home and don't want to share your space, call a professional to remove it. If you find a nonvenomous snake near your home, leave it be.

If you are bitten, don't panic and do seek immediate medical help. Don't apply a tourniquet unless you want to lose a limb, hand, or foot. And you don't need to bring the snake with you for identification because antivenom for pit vipers works for all pit vipers. Regardless of which species slips a fang into your hide, you're probably going to be okay. Despite my concerns about dying from rattler bite in the previous article, only one in 1,000 US snake bite victims die from the bite, and you are nine times more likely to be killed by lightning than by snake bite. There hasn't been a native snake bite fatality in Arkansas since 1956. If venom is injected during the bite, it's going to hurt like the devil and there will be scarring, but you're going to live.

Venomous snakes are valuable members of the Arkansas outdoors. They help control rodents, which controls ticks, which in turn controls tick diseases. I know several folks and a few good dogs who have been infected with terrible, possibly debilitating, tick diseases. I know only a few snake bite victims.





# Some Native Gardening Basics I Learned the Hard Way

Story and photos by Theo Witsell

In both my own experience and the experiences of many other native gardeners I've talked to, I've found that many of the frustrations people encounter in gardening with natives come from an incomplete understanding of these species' biology and ecology in the wild. So here are some lessons I've learned trying to bring our wild ecosystems home:

## **1) Just because a plant is native to Arkansas doesn't mean it will do well anywhere it gets planted.**

When humans first arrived to what is now Arkansas, they found nearly the entire land area covered with native plants. This simple fact underscores one of the many beauties of gardening with natives: there is a perfect species for every conceivable site.

My personal approach to gardening, which I like to sum up as "maximum biodiversity with minimal effort" centers around this idea of matching species and sites. It's when gardeners try to cross over these natural ecological boundaries in the landscape, that they are likely to run into trouble. I recommend studying a prospective garden site for a little

while, trying to determine the original natural community that would have been present there historically, and looking to intact examples of that natural community for inspiration. For example, in my yard, which occurs on a dry, rocky shale and sandstone ridge in the Ouachita Mountains with a canopy of post oak, shortleaf pine, and blackjack oak, I know that the native light-loving species of the poor acid soils of dry oak-pine woodlands and glades of the region will be at home on my site.

## **2) Just because a plant is native doesn't mean it will do well or look good in your garden without supplemental water during dry periods.**

Just because a plant will survive on a site doesn't mean it will thrive, flower, or look good. Some people have the idea that because a plant is native it will not need any care at all. Even drought-tolerant plants need some water, and this is especially true of young perennial plants that are getting established. Think of the survival of each plant as a tug-of-war between moisture available at the roots and water loss through the leaves – the more a plant is exposed to the



sun, the more moisture it will need to stay hydrated and fully function. It is the extremes of drought that kill plants, not the average daily or weekly or monthly moisture levels.

### 3) Some natives are “too happy” in the garden.

Another common frustration I hear from gardeners is that many native species grow too tall (often twice as tall as expected or desired) and flop over in the garden. In general, these are sun-loving species adapted to poor, infertile soils, and they occur in the wild in tight competition with others so that nutrients, water and space are all scarce. These plants really do like poor rocky/clayey/sandy soil with little organic matter. Resist the urge to coddle these kinds of natives with good soil!

### 4) Just because a plant is native doesn't mean it will be well-behaved and play nice with others.

Native species can be invasive, and especially so in the garden. Not all plants are alike, and even within a genus, different species may have evolved different life strategies, with some being naturally aggressive and weedy. Many of these “native invasives” share common traits like rapid growth or a rhizomatous growth habit (forming a colony from creeping horizontal underground stems). In general, I recommend against inviting these plants into the garden, unless you have a lot of space or are looking for a solid groundcover.

### 5) Most natives take a little effort and understanding to grow from seed.

Another common frustration I hear expressed from people is that they spread out some native seed and nothing ever came up. Often there are one or more of three things going on: 1) an incomplete understanding of seed ecology, 2) insufficient site preparation and maintenance and 3) impatience.

#### *Native Seed Ecology*

Most native plants, especially wildflowers, that people desire in the garden have seeds that require some sort of treatment in order to break dormancy and germinate. There are several different types of seed dormancy, but all of these are natural adaptations that ensure that the seeds will germinate at a time when the resulting seedlings have the best chance of survival. The most common type of dormancy occurs in seeds that need to go through a period of cool, moist conditions to germinate. As a gardener, you can sow these seeds in the fall as nature does or put them in a baggie of moist sand (not too wet!) in the refrigerator for a period of time before sowing them. Even after this period of “cold moist stratification,” most seeds won't germinate until soil temperatures reach a certain level, signaling to the seed that the danger of a hard freeze has passed.

Seeds of some species have a hard, protective seed coat



that needs to be physically broken in order for the seed to soak up water and break dormancy. In the wild this may happen as the seed passes through the digestive tract of a bird or other animal. A gardener can replicate this by gently rubbing these seeds with sandpaper or nicking the seed coat with a knife before sowing.

Other seeds require exposure to certain chemical compounds to break dormancy. In some species, including many wetland plants, ethylene (given off by ripening fruit or decaying vegetation) is the trigger. Many species native to fire-adapted ecosystems have evolved to germinate after a fire removes competing vegetation, and these seeds germinate in higher percentages after being exposed to chemicals in smoke and ash.

> >

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Some gardeners, myself included, have had success by making “smoke tea” (by forcing smoke from burning vegetation to bubble up through water) to treat seeds of these types of plants.

Another common misconception among gardeners is that seeds of native species must be buried to germinate. This is an uncommon requirement and is most often found in larger seeds (like oaks and hickories) that are planted by mammals like squirrels. Seeds of most natives do well on the surface of the soil (but with good soil contact) or only lightly covered.

Seeds of many native forest species, including many spring ephemeral wildflowers, have a double dormancy, requiring a period of warm, moist stratification followed by a period of cold, moist stratification. Some even require a second period of warm, moist stratification or even several years in the ground.

### Site Preparation and Maintenance

Another common cause of failure in planting native seed is inadequate site preparation and maintenance. Seeds need good contact with the soil to successfully germinate and become established. In the wild, many species establish new generations from seed in the year following a fire or flood or some other disturbance that makes the bare surface of the soil available to seed. The same conditions are required when establishing a native planting. Maintenance in the years following planting is also critical to control competing weedy vegetation, with periodic mowing recommended several times during the first and sometimes second year and annual burning or mowing after the growing season in the years after that.

### Patience

It will likely take three years for slow-growing native perennials to recruit from tiny seedlings to mature flowering plants (and longer for some species). An experienced practitioner of prairie restoration once told me (of prairies planted from seed): “Patience is key with a perennial prairie planting like this. It will take three years to really see the results. The first year it sleeps, the second year it creeps, but the third year it leaps.”

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*Theo Witsell is an ecologist and the Arkansas Natural Heritage Commission's chief of research and inventory. He is also curator of the ANHC Herbarium.*

*The ANHC, an agency of Arkansas Heritage, focuses on science-based conservation to protect Arkansas's biological diversity and maintains a statewide System of Natural Areas made up of more than 72,000 acres. The ANHC's Arkansas Heritage Program biodiversity database tracks the location and status of rare animal and plant species, as well as natural communities in Arkansas.*

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...continued from page 11

And then I've also danced with the devil.

These next few paragraphs feel like they need a disclaimer: I do not in any way condone the catching of venomous snakes by non-experts. It's stupid. It's monumentally stupid. But (you knew there'd be a "but") that inexplicable need for a tactile connection led me and my younger cousin, a snake-charmer pupil of mine too young to remember our Poppy, to capture and admire an approximately 5-foot timber rattler. We were an hour away from the nearest town, which was still 15 minutes from a hospital, and surely dead or permanently maimed had either of us been bitten.

Sometimes, as I lie in bed not too many years later, the memory of that afternoon comes back and I shudder at our stupidity. But in the full light of day, I wouldn't trade the moment.

For anyone else outside of two men old enough to know better on the banks of the Illinois Bayou that afternoon, the rattler was an embodiment of menace, a thing to be feared. But fear was the furthest thing from my mind. There was a knowledge in the narrow slitted pupils, the broad triangle head, the venom-filled jaws, the muscular tan and brown body accented with coal bands down to a black velvet tail punctuated by bone-colored rattles.

I wanted to know. I had to know. And so I did.

Since that day, I've had other close encounters of my choosing with other venomous snakes, but have counted coup only once more. It's not something I'll ever do again. The urge has dissipated, I rarely capture even nonvenom-



*northern cottonmouth*

ous snakes nowadays preferring to only observe. But a subtle stirring still slithers through my soul when I encounter the striking new-penny colors of an Ozark copperhead. I still get downright giddy about a cottonmouth cloaked in the swampy hues of death no matter what shade — bronze, brown, or midnight — it's wearing.

I've got a granddaughter now, a little cotton-top girl who follows Pa around the yard looking for critters under every log and in every rock pile. I hope to pass on what Poppy passed on to me. I want her to be wise yet fearless, smart yet brazen. I want her to reach out for knowledge even if it could be dangerous.



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# From Backyard Monarch Enthusiast to Citizen/Community Scientist

By Candice Annen, Monarch Stewards Program, Volunteer-Trainer



*This article was originally written to reflect the experiences of a Monarch Enthusiast on the Gulf Coast of Texas. While certain aspects are specific to Texas, mainly the types of native milkweed that grow best there, the overarching message of the article translates to any state on the Eastern Monarch Migration Flyway (from Canada to Mexico). Over the past few decades, as Monarchs' native wild habitat has been converted to cropland, well intentioned conservation efforts using nonnative milkweed host plants have flourished in many states, including Arkansas. The latest science shows how that trend has negatively impacted Monarch populations here in the United States. Read on to hear my journey of education and discovery, highlighting how I changed my behavior to reflect what science indicates is the best we can do for the imperiled Monarch Butterflies.*

## Misadventures with milkweed

About ten years ago, a neighborhood friend of mine told me with great enthusiasm about her adventures raising monarch butterflies. I was intrigued. I followed her lead and went to a small plant nursery that didn't use pesticides and bought my first milkweeds. Sure enough, I quickly encountered caterpillars! Unlike my friend, I did not bring the caterpillars inside to raise. Instead, I left them to survive in the confines of my backyard. As the first caterpillars grew and turned into eating machines, it was quickly evident; I needed more milkweed! Soon I was up to 50+ plants. That number would increase every year, as the number of hungry caterpillars increased to approximately 80 at a time!

Around year three, I noticed a disturbing trend among the newly hatched

monarchs. Many were unhealthy, deformed, weak, and unable to fly. What was happening?! I was distressed to see these sick and dying monarchs, and I wanted to know if I had done something that contributed to this unhealthy population. I started doing research, and my distress grew as I read about OE (*Ophryocystis elektroscirra*), a debilitating protozoan parasite that infects monarchs. What I learned next stopped me in my tracks: one of

the main reasons OE spreads is the predominant use of tropical milkweed, a non-native plant species that doesn't naturally die back in the winter. Tropical milkweed (*Asclepias curassavica*) can also interfere with monarch migration and reproduction. What?!? But this plant is so easy to grow and maintain for a non-plant person like me! What are my alternatives? And what can I do with the plants I currently have?

I began to seek out training I could attend, and I did find one located in the Hill Country of Texas, where native milkweed is abundant. I live in Houston, a coastal, tropical climate, where very specific species of native milkweed grow on their own, for instance slim milkweed (*Asclepias linearis*). I didn't find the solution I was hoping for, an abundance of native milkweed that I could grow as easily as tropical, or

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*“What I learned next stopped me in my tracks: one of the main reasons OE spreads is the predominant use of tropical milkweed, a non-native plant species that doesn't naturally die back in the winter. Tropical milkweed (*Asclepias curassavica*) can also interfere with monarch migration and reproduction. What?!?”*

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# ARKANSAS WILDLIFE News-of-Note



## 50 years of Arkansas Out of Doors (AOOD) Magazine

Chris Zimmerman, designer of AOOD, has a long history with the AWF magazine and reminded us that 2022 marks the 50th year from the first printing in 1972. Chris began his career in 1994 working for The Courier, the local newspaper in Russellville. At that time, the publication was printed on newsprint in what was referred to by newspapers as a 'tabloid' size. The Courier has its own printing press, and would print the issues. The production coordinator, Beverly Neal, was building it then and then The Courier would print it. Shortly after Chris came on, she asked if he would like to start doing it. He was young and ready to get his feet wet, so he stepped in and took over. After leaving The Courier, Chris continued to design the magazine and in 2007, founded his own business and folded it into ZimCreative. This magazine has been a part of Chris' entire career and AWF is incredibly grateful for his partnership, creativeness and support of AWF.

### Buffalo National River celebration events

Buffalo National River invites all to join in celebrating the 50th Anniversary of the designation of Buffalo National River, America's First National River! To celebrate this historic milestone, the park is planning a series of event weekends throughout 2022.

This link will take you to a webpage showing the entire outline of events for the year celebrating the 50th anniversary. <https://bnrpartners.org/bnr-50th-anniversary> Here are a couple of weekends to mark on your calendar.

#### Art in the Park Weekend - June 9 - 12, 2022

Celebrating the ways in which the Buffalo National River inspires artistic endeavors. This will include the Tyler Bend Music Festival featuring artists demonstrating traditional Ozark music traditions.

#### Park RX Weekend - October 8 - 9, 2022

Celebrating the natural resources at Buffalo National River and the health benefits they provide. Activities will include a scavenger hunt, bioblitz, moon party, and yoga classes and a naturalization ceremony for new

This link will take you to the National Park Service (NPS) Buffalo River website calendar of events. This will be the place that has the most up to date information on upcoming



events in the park including a lot of the 50th anniversary events. <https://www.nps.gov/buff/planyourvisit/calendar.htm>

And finally, this link will take you to the NPS webpage discussing the science symposium hosted earlier this spring which celebrated the 50th anniversary. The Teams link on this webpage will allow you listen to the recording of the symposium and will be available for four months. <https://www.nps.gov/buff/50th-anniversary-science-symposium.htm>

### Recovering America's Wildlife Act

Working together, our partners across the conservation community have made historic progress on the Recovering America's Wildlife Act. The bill has passed out of committee with bipartisan support in both the House and Senate. On April 7th, the U.S. Senate Environment and Public Works Committee advanced the Recovering America's Wildlife Act with a 15-5 bipartisan vote making it one step closer to becoming law. We again applaud Senator John Boozman (a member of this committee) for voting yes to



move this bill toward the finish line. In a tough political climate, we have made more progress on this issue than ever before and continue to encourage the entire Arkansas delegation to support it when the bill goes the House and Senate floor.

## Conservation Reserve Program Enhancement Act introduced

U.S. Sens. John Thune (R-S.D.) and Amy Klobuchar (D-Minn.), members of the Senate Committee on Agriculture, Nutrition, and Forestry, introduced the Conservation Reserve Program (CRP) Improvement Act in late March. The Conservation Reserve Program is an essential tool to help farmers and landowners safeguard wildlife habitat, support clean water and native species, and promote public-private partnerships to address challenges facing species essential to our wildlife heritage. This bipartisan legislation makes critical improvements to the program, including expanding its support for responsible grazing and related infrastructure, that will help it deliver better results for people and wildlife alike. The Senate should advance this bill or ensure it passes as part of a larger package.

## Preparing for the 2023 Farm Bill

Farmers, ranchers, sportsmen, and conservationists are calling on Congress to follow through on additional and historic investments in sustainable, climate-smart ag practices. On March 16th, the House Agriculture committee held a hearing on the role of the Farm Bill conservation programs in addressing climate change that underscored the need for increased conservation funding and technical assistance to meet demand from producers and conservationists. There have also been recent proposals to open Conservation Reserve Program (CRP) land to emergency crop production because of the war in Ukraine. While

being untenable due to a number of factors, it would also threaten biodiversity and years of investment in environmental restoration. CRP protects more than 20 million acres of land that, while mostly marginal for agricultural production, provide significant environmental benefits, are vital to wildlife habitat, increase carbon sequestered in the soil and improve water quality by reducing erosion and runoff. Grappling with ongoing pandemic effects, extreme weather, and even wars, highlights the need for resilient agricultural communities and the role conservation plays in mitigating and adapting to new, and old, shocks.

## Women's Leadership Development

Women are too often underrepresented in the sporting and conservation communities. Although women make up more than 25% of anglers, roughly 20% of hunters, and are the fastest growing segment of the sporting community (a 90% increase in the last 15 years), they seldom have leadership roles in sporting conservation or are the face of conservation campaigns. Artemis (an initiative of the National Wildlife Federation) changes this scenario by bringing sportswomen together to create a strong community of advocates for fish, wildlife and public lands who work to elevate sportswomen voices and actively develop sportswomen as leaders. Artemis works to deploy the talents of the best and brightest sportswomen and provide resources for women to maximize their potential as leaders in fish, wildlife, and conservation vocations. They enlist women mentors who share knowledge and experiences aimed at helping others hone their leadership skills. By hosting events that feature women leaders, Artemis is able to build networks of women who can help each other develop their conservation skill sets. To learn more about Artemis and connect with the Arkansas Ambassador, visit <https://artemis.nwf.org> or email Ashley Chance at [ChanceA@nwf.org](mailto:ChanceA@nwf.org).



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# The Covey

By Randy Zellers, Assistant Chief of Communications, AGFC

An innovative partnership between the Arkansas Game and Fish Commission and the Little Rock Garden Club (LRGC) has literally planted the seeds of conservation near central Arkansas's largest water-supply reservoir.

The Covey is a Partners for Plants project developed by LRGC that combines the efforts of many state agencies and nonprofit organizations to restore native prairie plants and pollinator species on 12 acres of land belonging to Central Arkansas Water. The property once was used as a sod farm, but with the garden club's help, it soon will become a section of prairie that benefits species such as northern bobwhite and pollinators like monarch butterflies.

Libby Davis is a member of the garden club who, along with Helen Moix, headed up the project. She said the endeavor has offered many garden club members a chance to participate in conservation efforts with the skills and passion they have for plants.

"We reached out to The Nature Conservancy to see if there were some



partnership opportunities to team up with someone for conservation efforts, and that led us to the Arkansas Game and Fish Commission," Davis said. "Scott Simon at TNC told us about the AGFC's quail restoration efforts, so we talked to (AGFC deputy director) Chris Colclasure, who put us in touch with Allison Fowler. From there the project really took off."

Fowler is the Wildlife Diversity Program coordinator for the AGFC. She has worked for many years building relationships with other agencies to benefit many game and nongame species in The Natural State.

"We work with many different nonprofit groups and organizations to stretch our money as far as possible and accomplish our goals, so when the garden club reached out to us in 2018, we had the perfect opportunity for them," Fowler said. "Garden club members could help gather and plant seeds from native, local genotypes on the old Zoysia farm now owned by Central Arkansas Water to rebuild that lost prairie ecosystem."

The project was awarded a \$6,000 grant from The Garden Club of America through its Partners for Plants program. The funds could be used during the next three years to help LRGC carry out its restoration efforts.

Garden club members then joined with members of Audubon Arkansas, Central Arkansas Water, The Nature Conservancy, Arkansas Natural Heritage Commission and Quail Forever to gather seeds from local sources.

"We would go out once a month for six months of each year to Mayflower and other areas near the restoration site to gather seeds from wild plants,"

Davis said. "Theo Witsell at the Natural Heritage Commission, Allie at AGFC, Jonathan Young from Audubon Arkansas, and Ryan Diener at Quail Forever helped us with identifying which plants we needed. They were all really great with showing us how to gather and dry the seeds."

Once seeds were collected, they were dried and cleaned at Audubon Arkansas to prepare them for planting.

"The entire experience was so different than what most of our members get to experience," Davis said. "And when we were finished, we were told that the seed we had collected would have cost about \$7,000 to purchase, so it was really encouraging knowing that our efforts were really making a difference."

After two years of collections, the Covey had enough seed to begin the planting process on the old sod farm. Central Arkansas Water conducted prescribed burns on the property in January to clear out competing vegetation and promote any native plant seeds available. Volunteers then spent a day sowing their native seed into the prepared soil.

"We broadcast seeded the area with a hopper and by hand in February," Davis said. "We were able to get in right before the huge snowstorm that hit Arkansas, and there was still ice on the ground from the other storm that hit a few days earlier."

When the planting was done, the team had managed to seed 90 percent of the project site with native plants.

The groups continued to collect more seed throughout the summer and fall and finished up the project in late 2021. The plan is to keep this project going at other locations in the Little Rock area.





...cont. from page 17

I learned that rearing monarchs in the backyard for fun is not fun for the monarchs. It can have deadly consequences for them. I now only rear a couple of monarchs a year for citizen/community science purposes. To contribute to Project Monarch Health, I catch monarchs with a net, test them for OE (I use my own microscope to get OE results immediately), register the results, and mail the results to the Laboratory.

To help slow down the spread of OE, I euthanize those monarchs heavily infected. Currently, I participate in 5 national Monarch Citizen/Community Science projects to help track trends, OE, and the monarchs themselves. As one of the National Wildlife Federation's Monarch Stewards certification program trainers, I teach participants to test for OE and encourage them to only have native milkweed species in their yards.

So much can be done to help this struggling species! Please consider using native species of milkweed in your garden, researching what species of milkweed are locally adapted to your area. If you have tropical milkweed in your yard, pledge to substitute it with a native species. Also consider participating in monarch conservation programs, learning to test for OE or helping create a more native, monarch-friendly habitat in your community.

**For the latest study on OE that outlines the impact of human participation go to:**

<https://www.monarchscience.org/single-post/monarchs-have-a-growing-parasite-problem-and-it-s-not-from-natural-causes>

**For more information, go to:**

<https://www.monarchparasites.org> | <https://www.journeynorth.org> | <https://www.nwf.org/monarchstewards>

**Below is a list of some of the best local resources for native plants and seeds and educational programs supporting monarchs and pollinators in Arkansas. If you aren't able to purchase milkweed plants, the best option is for you to purchase milkweed seeds and cultivate your own.**

AR Monarch Conservation Partnership - <https://www.arkansasmonarchs.org/>

[AR Native Plant Society https://anps.org/](https://anps.org/)

[AR Master Naturalists - https://arkansasmasternaturalists.org/](https://arkansasmasternaturalists.org/)

[Wild Ones Ozark chapter has a great list of native plant vendors - https://ozark.wildones.org/plant\\_sources\\_allied\\_orgs/](https://ozark.wildones.org/plant_sources_allied_orgs/)

[Pine Ridge Gardens - https://www.pineridgegardens.com/](https://www.pineridgegardens.com/)

[NW AR Native Plant Hub - https://www.facebook.com/NWAPlantHub](https://www.facebook.com/NWAPlantHub)

[Grand Prairie nursery https://www.facebook.com/Grand-Prairie-Nursery-111693444436411/](https://www.facebook.com/Grand-Prairie-Nursery-111693444436411/)

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# Arkansas Wild Kids Spring 2022

## Invertebrates and Microorganisms

By Lola Perritt

So often in conservation the public's greatest interest is on the plants and animals that are visible. The lowly invertebrates and micro-organisms are often overlooked because they are either invisible to the naked eye or considered unimportant. There has been a welcomed surge in conservation to protect the pollinators because scientists have convinced much of the public that we are going to starve if we don't protect them.

There are still a lot of other organisms that need our protection and the first step towards that goal is knowledge and appreciation for what they do. One such group sharing knowledge about these other organisms is The Xerces Society for Invertebrate Conservation (<http://www.xerces.org>). This 50-year-old, nonprofit organization's goal is to protect the natural world through conservation of invertebrates and their habitats. As a science-based organization, they both conduct their own research and rely on up-to-date information to guide their conservation work. Their key program areas are: pollinator conservation, endangered species conservation, and reducing pesticides use impacts. You can find more information on their website plus some excellent resources for children.

All living things either directly or indirectly rely on the soil for life and humans are not an exception. When it comes to enriching the soil, invertebrates and microbes are the superstars! Earthworms literally "till" the soil by taking organic matter they have eaten on the surface during the night and depositing it underground during the day. During the day they tunnel by eating their way through the soil and deposit that material during the night on the surface. Dung beetles take animal feces underground to feed their babies thus enriching the soil. Decomposers like termites, Bess beetles, maggots, bacteria and fungi break down dead plants, animals, and animal waste into nutrients that

growing plants need.

Dig around in the dirt and see what you can find. Do some research to identify organisms that you don't know and find out more about the animals that you think you know well. You may be surprised!

### Things to Do:

- Make a chart of what you find. Put them into groups such as worms, insects, isopods (roly-poly), etc.
- Graph how many of each group you found.
- Write a report or tell someone what you found out about each organism.
- Send soil sample(s) to the local County Extension agency for testing (its free) This will let you know organisms and nutrients are in your soil.

I am learning more about an incredible creature called a tardigrade. Go to YouTube and look for Tardigrades: Chubby, Misunderstood, & Not Immortal for more information on this fascinating creature also known as a Water Bear or Moss Piglet.





# Arkansas Wildlife Membership Registration Form

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#### II. Corporate Patron- \$2,000 (\$500/quarterly)

- Level I plus:
1. One year of ½ page ads in AOOD

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- Level I plus:
1. One Year of Full page ads in AOOD
  2. Additional five prepaid one year AWF Memberships to give friends and associates.

#### IV. Corporate Sustainer - \$5,000 (\$1,250/quarterly)

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