



Outdoor Oklahoma

MARCH/APRIL 2021 – ONLY \$10 A YEAR

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2021 Angler's Guide

**Mentoring:
It Takes One
To Make One**

**Paddlefish World
Records: What's
Up With That?**

**Nature's a
Playground
For Kid With
A Camera**



A PUBLICATION OF THE DEPARTMENT OF WILDLIFE CONSERVATION

Panoramas

We all can agree that 2020 was a year like no other. And we can all use some positive news right now. So, here's some great news that came out of 2020!

Despite the quarantines and mask mandates, 2020 was a magnificent year for the outdoors in Oklahoma.

As it happened, the great outdoors served as a great escape for many people needing relief from the new realities in the age of COVID-19. "The Outdoors Are Always Open" was the tagline we chose to encourage folks to get outside and experience what nature has to offer.

License Trends in 2020

The Outdoors Are #AlwaysOpen 🍌

2020 was a year like no other. In a time when the world had to close, Oklahoma's outdoors were there for everyone to enjoy!

RESIDENT HUNTING

+15% from
2019

RESIDENT FISHING

+49% from
2019

LIFETIME LICENSES

+36%
OVERALL

ANTLERLESS LICENSES

+34%
OVERALL

- Fishing license revenue increased 110% for May.
- Resident annual combination license sales increased 50% over 2019.
- Durable collector card sales increased 75% over 2019.

Be it fishing, camping, hiking, hunting, birding, or any number of enjoyable outdoor activities, participation took off. The surge was unprecedented, and our staff stepped up to meet the needs of greater public use of Wildlife Department resources. Department Director J.D. Strong summed it up with a message to everyone who took to the outdoors: "Thank you for an amazing 2020."

No one argues the benefits of outdoor activities to the mind and body. But in many cases, the outdoor exodus was also of great benefit to the fish, wildlife, hunters and anglers here in Oklahoma. That's because many more people bought hunting and fishing licenses in 2020. Compared to 2019, Oklahoma residents bought 49 percent more fishing licenses and 15 percent more hunting licenses during 2020.

Simply put, more license sales equals more money for wildlife.

Some of the numbers are astounding. Lifetime license sales rose 36 percent in 2020. Resident hunting license sales were up 68 percent for December. Antlerless deer licenses rose 34 percent over 2019. Overall, license sales increased 27 percent for the year.

Remember, these are license fees, not tax revenues. What many don't realize is that the Wildlife Department doesn't receive a single penny from general state tax appropriations. In 2019, license fees made up 30.8 percent of the Department's total revenue. Federal grants accounted for 33.3 percent of funding, and various other sources (such as ag and oil leases, donations and fines) account for the rest.

So, when we see growth in license sales, we know there will be more money available to meet our responsibility to manage and protect fish and wildlife, along with their habitats, while also growing our community of hunters and anglers, partnering with those who love the outdoors, and fostering stewardship with those who care for the land. There will be more public access, more outreach, and healthier fish and wildlife populations.

Oklahomans love the outdoors. And we love caring for Oklahoma's outdoor resources. Thanks for your support!

Nels Rodefeld

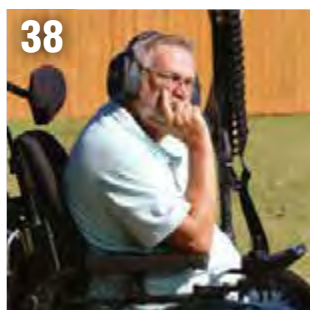
Chief, Communication and Education Division,
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Outdoor Oklahoma

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ON THE COVER: The joy of fishing shines from this young girl's face. It's just one element of extreme satisfaction just waiting for anyone who will mentor a new angler. What are you waiting for? Learn all about recruiting the next generation of fishing aficionados in the 2021 Angler's Guide, starting on page 8. (Photo by Kayt Jonnson/USFWS)

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Off the Beaten Path

NOTES ON WILDLIFE • OUTDOOR TIPS • READERS' LETTERS • ENVIRONMENTAL NEWS
COMPILED BY DON P. BROWN



BRINGING YOU OUTDOOR OKLAHOMA ADVENTURES LIKE NEVER BEFORE!

Imagine yourself spending the day bass fishing with Bassmaster champ Jimmy Houston. Or going on a guided hunt for a shot at a private-land tom turkey. How about getting up close to an alligator in the wild? Or perhaps becoming the proud owner of an Oklahoma Lifetime Hunting and Fishing License?

These possibilities will become realities for the lucky winners in the new **Outdoor Oklahoma Adventures** raffle program!

Whether you are a hunter, angler, or someone who just appreciates the natural resources we have in Oklahoma, these Outdoor Oklahoma Adventures provide you the chance to have a great — and likely a once-in-a-lifetime — outdoor experience.

All proceeds from these raffle opportunities go directly to the Oklahoma Department of Wildlife Conservation to fund fish and wildlife conservation, and public hunting and fishing opportunities for everyone to enjoy.

In this inaugural round, 14 raffles are being held, with Adventures ranging from hunting and fishing opportunities to wildlife viewing excursions and youth opportunities.

Anyone can enter, whether or not you have a hunting or fishing license. Tickets are \$10 each or a bundle of five tickets for \$30 for each of the Adventure raffles. Or get an Ultimate Bundle for \$50, which enters you into all 14 raffles. There is no limit to the number of tickets that you can buy. And winners can choose to transfer their prize to someone else who is eligible.

Raffle tickets are on sale now through the Wildlife Department's license website at GoOutdoorsOklahoma.com. Aug. 6, 2021, will be the last day to buy tickets for this round of raffles.

Here are the Outdoor Oklahoma Adventures you can try to win:

- Guided Fishing Trip with Pro Angler **Jimmy Houston**.
- Guided **Youth Dove Hunt** with Crash Landing Outdoors.
- Snagging for a **World Record Paddlefish** with Reel Good Time Guide Service.
- Guided **Youth Duck Hunt** with MLB Pitcher Archie Bradley.
- **Stream Snorkel Trip** with ODWC Biologist.
- Become a **Bear Biologist** for a Day.
- Guided **Spring Turkey Hunt** With HiRoost Outfitters.
- Southwestern Oklahoma **Hunt for a Cow Elk**.
- Get **Up Close to Alligators** in Southeastern Oklahoma.
- Guided **Birding Trip** to Red Slough with ODWC Experts.
- All-inclusive **Spring Turkey Hunt**.
- Private Land **Youth Deer Hunt**.
- **Spend a Day** With Any ODWC Employee.
- Win a **Lifetime Hunting and Fishing License**.

See all the details of each Adventure along with the rules at www.wildlifedepartment.com/outdoorok/adventures. Don't miss your chance of getting drawn for an Outdoor Oklahoma Adventure of a lifetime! ♦♦✕



Game Warden's Journal

**ACCOUNTS FROM THE FIELD BY THE PUBLIC
SERVANTS WHO ENFORCE THE FISH AND
WILDLIFE LAWS OF OKLAHOMA**



Two young tom turkeys were found near Whitesboro in Le Flore County, with the beards and breast meat removed. One of the young Jake turkeys had button spurs and the other had 3/4-inch spurs.

The carcasses were found discarded near a U.S. Forest Service gate adjacent to a county road about 2.5 miles from Whitesboro. Wardens believe the poaching happened the weekend of Feb. 6-7.

Anyone with information is asked to call one of these Game Wardens: **Clayton Kannady**, (580) 513-0814; **Thomas Gillham**, (918) 429-3910; **Terry Springwater**, (918) 431-2559. Callers may also use the Operation Game Thief hot line at (800) 522-8039. In all cases, callers can choose to remain anonymous.

A case that involved dumping of waterfowl was closed in a few hours with the help of social media, reported Game Wardens Lt. **Paul Welch** and **Jeremy Bersche**, both based in Osage County.

Ducks and geese were dumped in a trash bin behind a Skiatook convenience store around 8 p.m. Jan. 22. Some of the birds had been cleaned and some had not. Also, two freezer storage bags with cleaned waterfowl breasts in them were tossed with the carcasses.

One of the culprits was caught on



security camera video and the photo was posted on the Game Wardens Facebook page. Thanks to conscientious citizens, the case didn't take long to solve.

On Jan. 13, Game Warden **Brek Henry**, based in Sequoyah County, received information from a local hunter about a vehicle in a closed area of Sequoyah National Wildlife Refuge near Vian. Suspecting illegal hunting activity, Henry went to investigate and found the vehicle along with an elderly man who had been missing since the early morning hours.

"The man had become disoriented and wasn't sure of his location, and drove down a closed and unmaintained road. His vehicle had gotten stuck, but fortunately he stayed with the vehicle," Henry said.

Henry contacted the Sequoyah County Sheriff's Office, and the man's family was notified. The family had been searching for him since just after daylight and were very relieved that he was found before dark. "I'm very thankful the concerned hunter called this in, or it could have ended differently," Henry said.

He said the man was in good health and told him, "I got a long nap!"

(Reports from the Oklahoma Game Wardens Facebook page.)

EDITOR'S NOTE: Please help make a difference! When violators break the law, they steal fish and wildlife from you! Report violations anonymously by calling Operation Game Thief at (800) 522-8039. You could earn a cash reward.

IT'S THE LAW

Private landowners who own a pond should be aware of fishing regulations that apply to them.

Private ponds are not bound to the daily bag limits, possession limits or length limits that apply to public waters.

Legal resident owners or tenants, their spouses, parents, grandparents, children and their spouses, grandchildren and their spouses who are fishing on land owned or leased by them are not required to purchase Oklahoma fishing licenses. Other people angling in these waters must have a license, unless exempt. Illegal angling methods such as electrofishing are prohibited in private ponds as well as public waters.

In addition, pond owners who want to kill out their ponds due to stunted fish growth or other reasons by using the fish toxin rotenone must contact the Game Warden in their county



beforehand. It is illegal to apply rotenone to any Oklahoma waters without ODWC approval and supervision.

Fisheries biologists can provide information on stocking and technical assistance to pond owners who want to know more about managing their ponds. For more information on pond management, go to www.wildlifedepartment.com/lands-and-minerals/farm-ponds.

Smokey Solis, Communication Specialist

WELCOME TO **THE DOCK** ONLINE

The Wildlife Department wants to showcase your proud fish catches to the world! The Dock is the place to share your fish photos and see what's being caught across the state.

There are no minimum weight or measurement requirements. A photo of any fish species, no matter the size or method of take, that was caught in Oklahoma is eligible for submission. So, catch that fish, snap that pic, and show it off at The Dock!

This new photo-sharing platform is online at wildlifedepartment.com/fishing/the_Dock.

There are a few requirements for submission:

- Fish was caught in Oklahoma this year.
- Any people in the photo must be appropriately dressed.
- No tobacco, alcohol, drugs and/or drug paraphernalia, or firearms in the photo.
- Fish must be clean and whole (i.e. not bloody, filleted, or gutted).

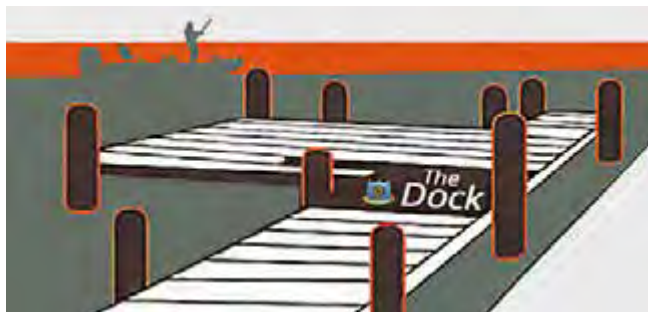


Photo submissions list the angler's first name and last name or initial, the fish species, where it was caught, and when it was caught.

For those trophy anglers out there, don't fret; ODWC will continue to maintain its State Fish Record Program.

Remember, The Outdoors Are Always Open! So, wet that line, hook that fish, and share it with the world at The Dock! **✕

— Skylar St. Yves, Aquatic Education and R3 Fishing Coordinator



CHANCE MAXVILLE



KYLE UNDERWOOD



KYLE UNDERWOOD

WEEKLY SOCIAL MEDIA **EDITOR'S CHOICE**


By Sarah Southerland, Communication Specialist

Each week on the Wildlife Department's social media outlets, we welcome viewers to submit their fine outdoor photography for a fun feature we call the Weekly Editor's Choice Photo Lineup. Of all the great photos posted to the ODWC pages on Facebook, Instagram and Twitter, we select our top three favorites (and maybe an honorable mention or two) for the week, and share the winners on our social media for all to see.

Now, we are taking the best from the weekly online photo contests, and sharing the cream of the crop here in Outdoor Oklahoma magazine. So, be sure to check out ODWC social media, and post photos tagged #OutdoorOklahoma for the weekly contest. Your creation might end up in Outdoor Oklahoma! **✕



RICHARD TAYLOR



Game Bag

A COLLECTION OF LETTERS TO THE WILDLIFE DEPARTMENT
We'd like to hear from you! Send your letters to Outdoor Oklahoma Letters, P.O. Box 53465, Oklahoma City, OK 73152, or send e-mail to donald.brown@odwc.ok.gov.

Dear Director J.D. Strong,

I wanted to send out a thank you to Wildlife Biologist **Clay Barnes** at the McCurtain County Wilderness Area. I am a Southeastern Oklahoma State University student, and I am currently writing a term paper over the endangered red-cockaded woodpecker. I had heard there was a small population in the Broken Bow area, so I called Mr. Barnes and mentioned my family and I were planning to take a quick trip to Broken Bow and were curious if there was a location where we could possibly see the bird. He provided us with a general location, but went above and beyond by spending his Saturday showing us around the wilderness area, some of the equipment he used, and gave us a glimpse into his day-to-day with the birds and how he manages them.

He is incredibly knowledgeable about this woodpecker and its specific habitat and the best ways to help the birds thrive. Mr. Barnes is such a kind and personable person, and it was obvious to us that he truly loves and cares about his work. My family and I had the most amazing time learning from him and getting to know him and what he does for the red-cockaded woodpecker.

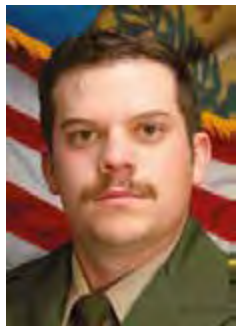
Thanks again, Clay!

Sarah Routledge

Dear Director J.D. Strong,

I wanted to take some time to tell you what a tremendous help Game Warden **Bailey Johnson** was to me and my hunting partner today. We ran into trouble this morning at about 6 walking through a cattail marsh when I fell and injured my knee. When we realized we had run out of options to get out, we called Mr. Johnson to see if he could help us. He got to our location very quickly, and despite not having waders, he walked into the marsh to help us get out. I would like to mention that without him, we would've had a very difficult and painful time trying to get back to the truck. He wouldn't allow me to buy him lunch as a small repayment for his help and kindness, so I figured it best to let you know about how much I appreciate his help and hard work.

Dawson Hudman, Mineola, Texas



Outdoor Calendar

FOR THE LATEST UPDATES, GO ONLINE TO LICENSE.
GoOUTDOORSOKLAHOMA.COM/Event/Events.aspx

NOTICE: Events listed were still scheduled at press time; events are subject to cancellation due to the COVID-19 pandemic.

MARCH 2021

- 1 Okla. Wildlife Conservation Comm. meeting, 9 a.m., Oklahoma City.
- 3 "Where to Hunt: North Central Oklahoma" online clinic, 7 p.m.
Register: license.gooutdoorsoklahoma.com/event/events.aspx.
- 7 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 9 Ask an Angler: Virtual Fishing Course (Spawning White Bass Tips), 1-3 p.m., YouTube Live.
Register: license.gooutdoorsoklahoma.com/event/events.aspx.
- 14 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 16 Okla. Striped Bass Assn. meeting, 7 p.m., Zebco, Tulsa, (918) 639-8114.
- 20 Hunter Ed course, 9 a.m.-6 p.m., Tahlequah.
Register: license.gooutdoorsoklahoma.com/event/events.aspx
- 23 Learn to Hunt Turkey: Behavior, Physiology, Habitat virtual class, 7 p.m., Google Meet.
Register: license.gooutdoorsoklahoma.com/event/events.aspx
- 21 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 28 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 30 Ask an Angler: Virtual Fishing Course (Spawning Black Bass Tips), 1-3 p.m., YouTube Live.
Register: license.gooutdoorsoklahoma.com/event/events.aspx
Learn to Hunt Turkey: Gear, Set-Up virtual class, Habitat, 7 p.m., Google Meet.
Register: license.gooutdoorsoklahoma.com/event/events.aspx

- **Ducks Unlimited** event set in Wagoner, March 6. Info: www.ducks.org/Oklahoma/events.
- **Friends of NRA** event info: www.FriendsOfNRA.org.
- **National Wild Turkey Federation** events in Pryor, March 5; Muskogee, March 11; Wagoner, March 13; Westville, March 26; Idabel, March 27; Hydro, March 27. Info: www.nwtf.org/events.

APRIL 2021

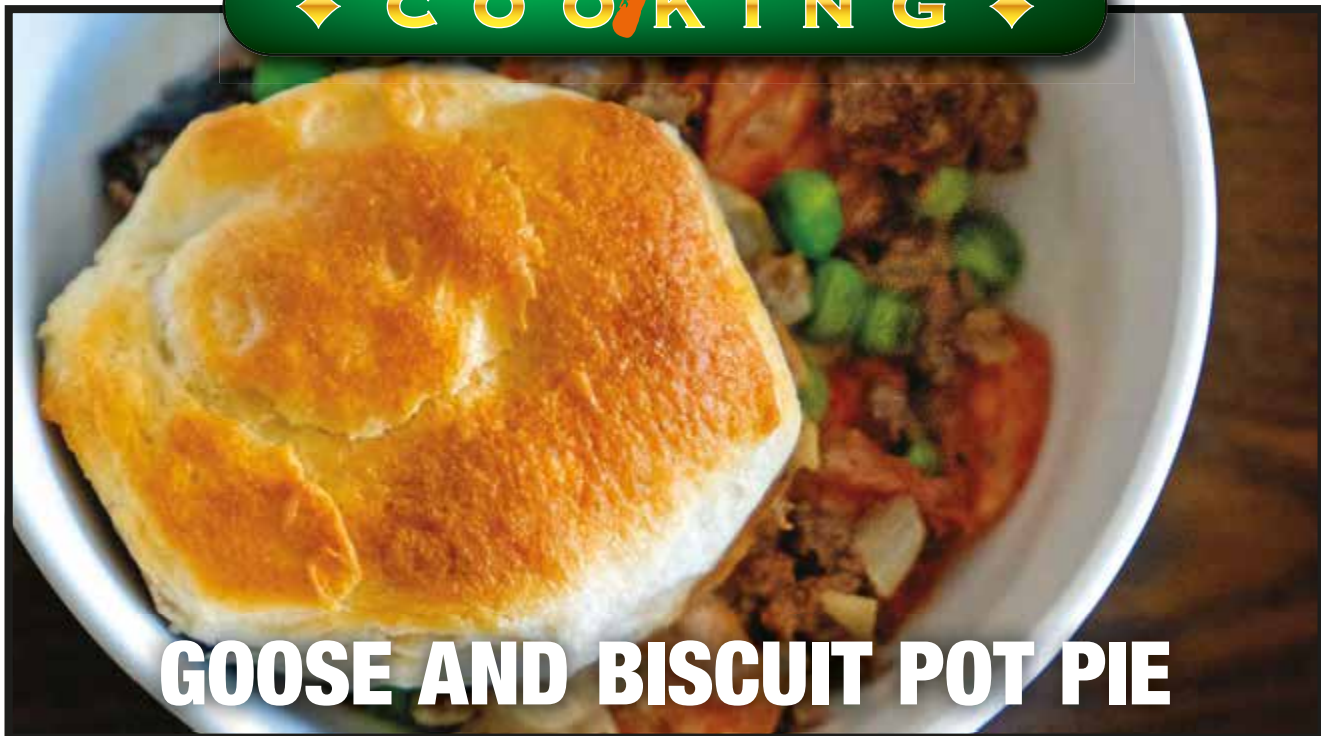
- 1 Controlled Hunts application period opens, <https://www.wildlifedepartment.com/hunting/controlledhunts>.
- 4 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 5 Okla. Wildlife Conservation Comm. meeting, 9 a.m., Oklahoma City.
Learn to Hunt Turkey: Where to Go virtual class, Habitat, 7 p.m., Google Meet.
Register: license.gooutdoorsoklahoma.com/event/events.aspx
- 11 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 15 Readers' Photo Showcase entries due; www.tinyurl.com/enterRPS.
- 16 Okla. Striped Bass Assn. meeting, 7 p.m., Zebco, Tulsa, (918) 639-8114.
- 18 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.
- 24 RMEF Oklahoma River Chapter banquet, Tuttle. Tickets: (405) 642-5756.
- 25 "Outdoor Oklahoma" TV, 8 a.m. and 2:30 p.m., OETA.

- **Ducks Unlimited** event set in Newcastle, April 23.
Info: www.ducks.org/Oklahoma/events.
- **Friends of NRA** event info: www.FriendsOfNRA.org.
- **National Wild Turkey Federation** event info: www.nwtf.org/events.

**** HUNTING SEASON DATES: www.wildlifedepartment.com/hunting/seasons ****

Wild About

◆ COOKING ◆



SMOKEY SOLIS/ODW

GOOSE AND BISCUIT POT PIE

By Smokey Solis, Communication and Education Specialist

As a young waterfowler, I have wondered how I will be able to cook goose into a tasty meal that everyone will enjoy. Well, this recipe is the key to happiness! Grab your cast-iron skillet! We're going to make a goose pot pie!

Ingredients

1 lb. ground goose
2 medium carrots, halved and sliced into half-moons
2 cups peas
1 yellow onion, diced
1 pkg. (8 oz.) fresh mushrooms, sliced
3 cloves of garlic, chopped
2 tbsp. sour cream
2 tbsp. cream cheese
1 tbsp. thyme
1 tbsp. beef stock concentrate
2 tbsp. high-temperature cooking oil
2 tbsp. flour
3 tbsp. butter
½ can refrigerated biscuits
Salt and pepper to taste

- Preheat oven to 450 degrees.
- Melt 2 tbsp. of butter in a microwave-safe bowl. Set aside to use later.
- In a medium ovenproof pan, heat oil. Cook ground goose until browned; season with salt and pepper.
- Add carrots and mushrooms; season with salt and pepper; cook until browned and softened.
- Add 1 tbsp. butter, garlic, onion, and thyme; stir until lightly browned.
- Sprinkle flour over the mixture; stir until well-combined and browned, about 1 minute.
- Gradually add 1 cup water, stirring until incorporated. Add stock concentrate and continue to stir until the mixture has thickened.
- Add peas, sour cream, and cream cheese; stir until well-combined. Remove from heat.
- Split biscuits in half, and cover the mixture with the biscuit halves, leaving about one-fourth of an inch from the side of the pan. Brush top with melted 2 tbsp. butter and place pan in oven. Bake 10-12 minutes, or until biscuits are golden brown.

Once the biscuits are golden brown, you're ready to chow down on some hearty goose pot pie! As with any wild game bird, watch out for shotgun pellets while you're eating. Nobody wants to go to the dentist because of their pie! ♦♦✕

2020 CREATIVE WRITING COMPETITION

“ONE DAY, I WILL GET TO PASS ON MY OWN STORIES”

EDITOR'S NOTE: Each year, the Oklahoma Department of Wildlife Conservation and Oklahoma Station Chapter Safari Club International join to sponsor a creative writing competition for Oklahoma middle and high school students. A boy and a girl from two age divisions are selected winners. Students were required to write essays using the theme “Hunting: Sharing the Heritage” or “Archery: What I Like About Archery in the Schools and Bowhunting.” Winners in the age 15-17 category receive a guided antelope hunt in the Texas Panhandle, and winners in the 11-14 age category receive a hunting trip with Rack Attack Outfitters (or similar) and a scholarship to the Outdoor Texas Camp. In this issue, Outdoor Oklahoma honors senior category female winner Braelyn Blasengame, 16, from Stuart High School.



SHARING THE HERITAGE OF HUNTING

By Braelyn Blasengame



The shrill sound of the alarm wakens me, and I hear the sharp wake-up call from my dad from the doorway. “Time to rise and shine girl,” he calls. I roll slowly out of bed. I can see that it is still absolute pitch darkness outside my bedroom window, and I think about how I am thankful there wasn’t a full moon last night. This gives me hope that the big buck that I have been hoping to harvest all season didn’t venture out to graze under the full moon’s light and will be out foraging for his breakfast this morning.

After I put on all my hunting clothes, I head to the living room to meet up with my dad who has been ready a while and has been impatiently waiting on me to make my appearance. I begin to help him quietly gather our guns and gear. We both try not to wake up my mom in all of our preparations. Dad and I hurry because we are both beginning to get overheated thanks to the thick and heavy camouflage we have on. On our way out the door, we grab a breakfast sandwich that my dad had prepared.

I am very thankful that my dad is always so thoughtful and prepared because I always seem to be starving by the time we reach the woods. We manage to devour our breakfast on the way to our hunting land. The southeastern Oklahoma scenery flies by in a dark blur as we travel the miles to our destination. On the way, my dad always has great stories to tell about all the times he hunted with my Grandpa on this same piece of hunting land. He tells me of the successes and failures he experienced at my age. I like to tease him about the “big bucks” that always seemed to get away, and we laugh at his misfortune and enjoy this special time together.

As we arrive at our family land, I begin to imagine how my dad must have felt, and his dad before him. I wonder if their heartbeat raced with excitement at the prospect of encountering their “big buck” whenever they stepped foot on this land. I

am convinced they did, since hunting is part of my heritage, and I know mine does. I wonder if it is because their blood runs through my veins.

We quietly make our way to the tree stand that we strategically and painstakingly put up months before. I am positive that every step I take on the leaf covered ground sounds like crackling thunderclaps to every living creature within a two-mile radius. I concentrate on being as quiet as I possibly can. Dad doesn’t complain, so I must be doing it OK.

We ascend our two-man tree stand and begin the traditional waiting ritual. We communicate with our eyes and facial gestures as best we can under all our coverings.

As dawn breaks, every sound we hear brings us both to full alert. I try not to be too anxious because I know that it’s called “hunting” for a reason and not “catching.” Patience is the secret to success. My dad has raised me to understand that nature is unpredictable and that it’s called wildlife for a reason. He has taught me to respect nature and all its magnificent gifts.

All of a sudden there is a sound of crashing limbs just behind our stand! My body goes rigid! I do not move a muscle! I don’t even think I breathed for the longest time! Ever so slowly my buck came meandering into the clearing from behind us and stopped just ahead of our stand. I send up a silent prayer of thanks and then focus on being ready with my gun if he turns and offers me the perfect shot. The waiting is torture! The chattering of the squirrels must alert him that he’s not alone in the clearing. He remains facing directly away from us and, after scouting the area and showing his snowy white tail, he dashes away into the dense forest ahead. I release a huge breath and lower my gun. My dad pats my stocking cap-covered head and tells me that now I have a “big buck that got away” story of my own. I look at him hard for a second and then we both begin to laugh.

On the drive back home, Dad and I discuss tomorrow morning’s trip back to the woods. I’m optimistic about my big buck returning again. As I look out the truck window, I think about how one day I will get to pass on my own stories, along with the rest of the family’s stories, to my children as we travel down these familiar Oklahoma roads and carry on this part of our family heritage with them. **x



ANGLER'S GUIDE 2021

IT TAKES ONE TO MAKE ONE

NEW ANGLERS NEED MENTORS TO BUILD A LIFELONG PASSION

Fishing, it can be argued, is America's favorite pastime. For generations, the angling tradition has been passed from mother and father to son and daughter. There has been no question about fishing's vibrant future — until now.

Changes in American society during the past several decades are now creating a sense of urgency among people and organizations who want to see this nation's outdoor heritage live on for many generations to come. Some of those societal changes: more people living in urban areas without nearby places for fishing, more time spent at work, more activities competing for recreational time, and people increasingly isolating in front of screens.

Declines in fishing participation pose a real threat to fish and wildlife conservation agencies that are charged with conserving natural resources for current and future generations. When participation goes down, so does the funding that these agencies receive.

Conservation in Oklahoma is funded primarily by anglers and hunters when they buy hunting and fishing licenses and certain outdoor gear. Since the Oklahoma Department of Wildlife Conservation receives no general tax appropriations from the state, it's important to maintain the number of people who are fishing and hunting in Oklahoma in order to maintain adequate funding to adequately manage the fish and wildlife of the state.

That's why ODWC has embraced planning and programs revolving around a concept called R3. It stands for Recruitment, Retention and Reactivation. And its goal is to at least maintain, and hopefully build, the ranks of outdoor enthusiasts.

Current anglers are in a great position to help ODWC in this mission. Current anglers are where the knowledge and experience are found. And that knowledge and experience are the cornerstones for creating new anglers through a mentoring relationship.

New anglers don't appear out of thin air. They are mentored, taught, and taken along for the fun. The support of a mentor is key in helping newcomers continue in their outdoor pursuits with confidence, until they are comfortable with their skills and newfound identity as an angler.

According to research, mentorship in outdoors skills is exactly what's needed if sportsmen and women wish to see their outdoor heritage passed down.

Having a mentor is invaluable for someone just getting started with fishing. Teaching has a profound impact on the next generation of anglers and their mentors. Gift them a fishing license, and take them fishing at a nearby body of water. A mentor will then have a fishing buddy for years to come!

But there's more to creating a new angler than simply taking someone fishing for the first time. It can be a daunting challenge. But here are some suggestions for mentoring success.



HEATHER DEL MORAL/ODWC

Friends can enjoy fishing together.

BECOMING A MENTOR

"Unlike traditional hobbies and sports available to children and adults alike, hunting and fishing take introduction and mentorship. There aren't teams, coaches and sign-up sheets to recruit the next generation of outdoorsmen and women. It's up to those of us who enjoy these outdoor pursuits to pass these skills along, and fishing is a perfect place to start."

Wise words from the Wildlife Department's R3 Fishing Coordinator Skylar St. Yves.

The national consensus about R3 is that sportsmen must work with their respective conservation agencies to pass along their outdoor traditions or risk watching their heritage of conservation slowly erode.

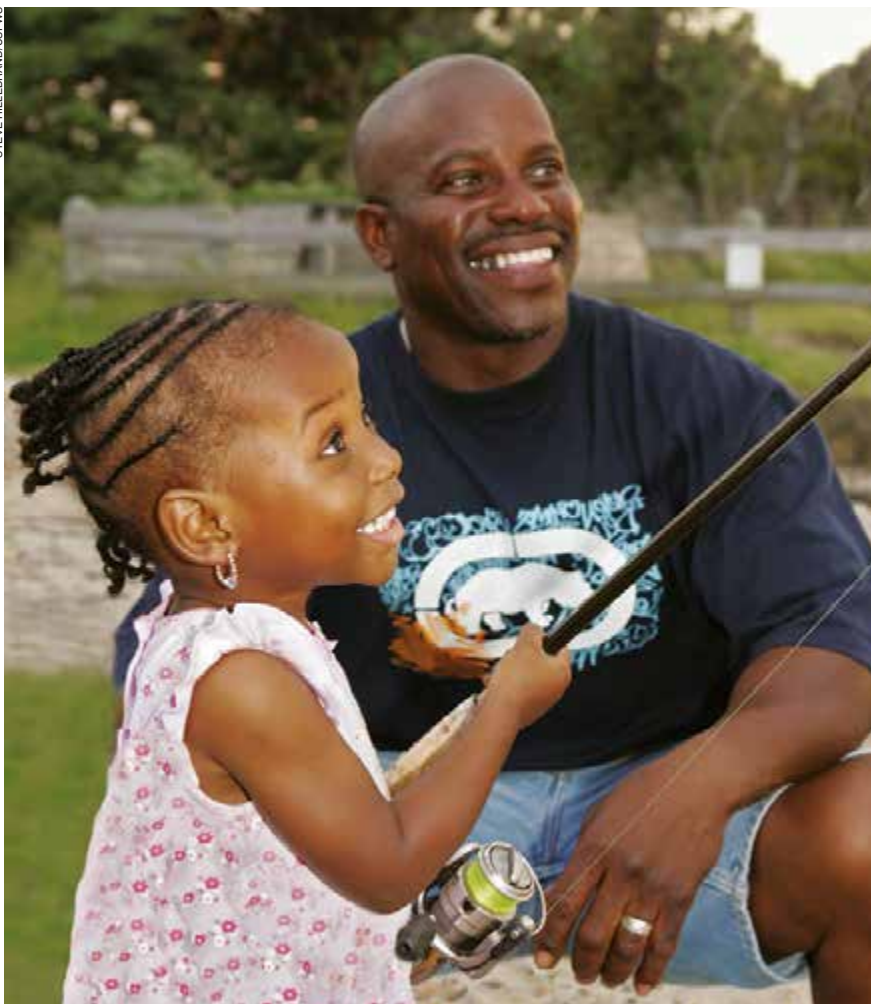
As the years go by, longtime anglers and hunters are "aging out" of these activities. In order to maintain the same levels of participation (which equates to funding for conservation, management and opportunities), then those who are leaving these pastimes must be replaced with new people engaging in them.

Fortunately, Oklahoma's outdoor scene is strong, and its participants are passionate — a good thing when conservation is funded by sportsmen and women when they buy fishing and hunting licenses and certain outdoor gear.

But passion alone isn't enough. Yes, sportsmen and women must actively engage in the outdoors, but they must also be part of a larger story — someone else's story — by mentoring new outdoorsmen and women.

Simply put: It takes one to make one!

STEVE HILLEBRAND/USFWS



Becoming a mentor means making a commitment to the next generation.

Deciding to become a mentor isn't hard. But it is a commitment to the future. Not only the future of fishing or hunting, but to the future quality of life of the person who is mentored. All you have to do is decide to commit, then find the one or two or three to whom you will serve as a mentor.

It's a likely bet that everyone knows someone who would love for you to take them fishing. Ask, then plan, then do it. While the initial exposure is very important, it's just as important to continue the process. Remember, you are committing to create a new angler for a lifetime!

IMPORTANCE OF SUCCESS

We've all heard the saying "a day of fishing is better than a day of anything else." Unfortunately, that sentiment isn't always shared by first-time anglers. Success is important, and that success is a result of good preparation, proper technique, know-how, and a little luck sprinkled in.

There's nothing better than seeing the marvel on a new angler's face when he or she reels in that first fish. But there's nothing more frustrating than watching a new angler fidget with impatience. That's why it's best to start someone off with the basics: bobber, bait and a productive time of year. In Oklahoma, the best time of year is late spring, summer and early fall.

Those times are when most Oklahoma fish species are actively feeding near shore. Bass, sunfish and catfish all patrol the near-shore areas of lakes and ponds during the warmer months. A worm and a bobber fished near structure, such as logs or rip-rap, can yield great results.

The fishing is usually fast and furious, which is perfect for beginners. The thrill of seeing a bobber bounce around almost immediately after hitting the water keeps new anglers actively engaged in the experience. It also teaches those anglers where to look for fish, which is important as they venture further into the sport.

Light, small tackle is best. Traditionally, small round bobbbers are used when fishing with a worm. That's fine, but new anglers might have more fun using small stick-shaped bobbbers, which create less friction with the water and tend to move more during the bite.

Small fish and small bites don't always make a round bobber submerge, thus making it more difficult for novice fisherman to know when to set the hook. This can lead to frustration, which may result in a bad experience. Stick-shaped bobbbers also help eliminate some of the slack caused from a fish strike, making it easier to set the hook and ultimately reel in the fish.

It's important to provide encouragement when a bite is missed or the bait is taken. A target-rich environment allows a new angler the opportunity to make mistakes while still having success.

This is where a small body of water, such as one of the ODWC Close to Home Fishing lakes or a farm pond, comes in handy. A large reservoir or big river can be overwhelming for a new angler. Keeping things small, from water size to fish, is best.

Catching panfish is an excellent start for new anglers. They're easy to hook and easy to reel in. We love the excitement of fighting a fish, but we didn't learn to accomplish that feat by starting off with

monsters. Remember that learning to cast, reel and set a hook are paramount to an angler's success. Those skills are perfectly honed on summer sunfish.



DON P. BROWN/ODWC

The Paul George Foundation's support of OKFITS has helped numerous fourth-graders experience the thrill of catching their first fish.



MARSHALL REIGH/ODWC

Reeling in a mess of catfish like this makes for great memories for Mom and the kids.

IMPORTANCE OF EDUCATION

Sometimes we get so amped up fishing that we forget to offer the most basic of guidance. What's old hat for you are the first steps for a new angler. Patience is as important for the mentor as it is for the student.

Don't be in a rush to get your student on the bank right away. Consider starting with some education at home first, where their attention won't be on the nearby water. Teach them about the equipment they will be using and how to get it rigged up. Simple knots such as the improved clinch and Palomar are great for first-timers.

Every craftsman takes pride in his or her work, and reeling in a fish is the result of that dedication, so don't skip these steps. They will instill confidence in the new angler and eventually lead to their ability to do it on their own, which is ultimately the goal that can sometimes get lost in just simply catching fish.

This also means encouraging a new angler to bait his or her own hook. If a new angler is hesitant to touch a worm or some other type of "yucky" bait, start out with a crappie nibble. These work great for panfish, cost about the same as a cup of worms, and can last much longer since they keep without refrigeration. The nibbles are great for panfishing. There's less mess, and you don't have to worry about forgetting them in a pack on a hot day.

Once your new angler gets the hang of the cast-and-wait (or bobber) technique, you're ready to move on to cast-and-retrieve methods. I can't stress the importance of making sure your angler has a firm grasp of casting and reeling when deciding to upgrade to lures. The variables for success increase dramatically at this stage, so it's best to stick with the same basic rod and reel setup and use small, steady retrievable lures such as rooster tails and beetle spinners.

And be aware that this is the time when the dreaded hang-up is fully in play. Be ready to deal with any frustration that results from getting hung up.

Casting is a skill honed through practice. And a great way for a student to develop casting skills is to use a hookless casting plug to practice in the yard or park. A casting plug would make a great "welcome to fishing" gift!

When it's time to fish with lures, consider



WILDLIFEDEPARTMENT.COM



WILDLIFEDEPARTMENT.COM

Mentoring a youngster in fishing provides seemingly endless "teachable moments," such as learning about the fish that are caught or learning how to tie fishing knots.

starting with a rooster tail. It's versatile and has a successful hook-set rate due to a rear treble hook that stays horizontal when retrieved. It's an excellent spring and fall lure for all pond species because, at a medium retrieve speed, it usually avoids hazards by staying in the middle of the water column. It's easy to sense a strike, and the tension from the retrieve is usually enough to set the hook, making it the perfect starter lure for a new angler.

Another good starter lure is a one-eighth ounce black or orange beetle spinner.

These two lures introduce the basic principles needed when anglers begin to explore larger bodies of water with heavier crankbaits and spinners. They teach new anglers how to really set a hook on a striking fish. There's something instinctual about feeling the tug against the tension of a steadily retrieved line and setting the hook.

IMPORTANCE OF CONSISTENCY

Introducing someone new to fishing is easy. Creating a fisherman is a challenge.

Research shows that creating new anglers doesn't happen with a "one and done" approach. One fishing experience alone will not recruit a new angler; rather it's the quality and frequency of fishing experiences that will make a difference.

Takeaway: The chance of creating lifelong anglers increases with repeated angling experiences and contacts.

For angling mentors to be most effective, they should engage in a series of learning steps with hands-on experience. Quality multiple contacts between mentors and students are effective in building confidence and recruiting anglers. This strategy allows students to develop the needed skills that will then allow them to continue the activity on their own.

Sometimes roadblocks pop up. What if you latch onto a student during the winter months? It's important to know how your student will perceive the experience. It might pay greater dividends to put off a first fishing trip. Winter's cold weather conditions and longer wait times between bites can be turnoffs for those just getting started with fishing.

But if your student is hyped up and understands the necessity of being patient,

there are various wintertime angling opportunities. The Wildlife Department stocks trout at designated fishing sites across the state, including Dolese Park Pond in Oklahoma City and Veteran's Park Pond in Jenks.

HOW TO FAIL AS A MENTOR

Real mentoring isn't. It's more than advising, more than coaching, more than giving instructions. It means taking responsibility for the learning of another and making a commitment to that person's growth and development.

All of this makes it easy to fail as a mentor. Here are things you should do if you want to kill a mentoring relationship, according to the experts:

Lecture your student a lot. Instead of listening, talk continually. Instead of helping a student learn from a situation, force the student to do things your way.

Tell war stories. Emphasize all the important things you've done, all the battles you've won, and all the results you've achieved. Don't let the student's experiences interfere with your own.

Criticize everything. Tear the student down at every opportunity and never be satisfied with anything he or she does. Withhold any praise or recognition.

Fail to allocate time. Let other priorities take precedence on your personal agenda and only give a student fleeting attention.

Fail to permit mistakes. Don't let the student do anything wrong. Interfere with anything the student does that might not succeed.

Breach confidentiality. Share your student's confidences with others, talk behind his or her back, and don't keep promises.

RESOURCES

Fishing Resources Webpage: The Wildlife Department's Fishing R3 Coordinator Skylar St.Yves has created a Fishing Resources page on the ODWC website. It started as a way to keep anglers up-to-date with relevant fishing tips/content. Since then, the webpage has been blossoming into a one-stop shop for Oklahoma anglers. Coming this spring will be a "Build Your Next Fishing Trip" function. It will allow anglers to search for public access points, find bait/tackle shops, locate places to stay, and much more!

A great place for mentors to visit is the "Beginning Angler Tips" section at www.wildlifedepartment.com/fishing/beginning-angler-tips. You'll find plenty of

In addition to searching through content provided on the Fishing Resources webpage, anglers are encouraged to reach out to St.Yves directly if they have fishing-related questions. His contact information is at the bottom of the Fishing Resources webpage.

Oklahoma Fishing in the Schools Manual: This is the instruction book used by many state schools that offer the Oklahoma



Serving as a fishing mentor and creating a new angler brings many rewards.



Another great mentor-student moment!

Fishing in the Schools educational curriculum. It's a comprehensive guide designed for youngsters (but good for a novice of any age) who are being introduced for fishing for the first time. Mentors will find plenty of useful information here: www.wildlifedepartment.com/sites/default/files/education/2019_okfits_manual_web_sm.pdf.

ODWC Aquatic Resources Education Program: An AREP clinic consists of an educational component that teaches basic fishing techniques and is usually followed by an opportunity to fish at a nearby pond or lake. Clinics are conducted by certified volunteer instructors or ODWC employees. Clinics are held during warmer months, and participants must pre-register. Learn more at www.wildlifedepartment.com/education/fishing-education/fishing-education-aquatic-ed.

Explore Bowfishing Manual: Another ODWC educational curriculum that introduces an alternative way to fish. See the instruction manual at www.wildlifedepartment.com/sites/default/files/education/ok_explore_bowfishing.pdf.

Oklahoma Fishing Regulations: Of course, knowing the regulations is a must for every angler — novice or seasoned. What's a game fish? Nongame fish? Does a certain lake have a length limit? Can I use artificial bait in this stream? Learn the answers to all of these questions and much more in the annual Oklahoma Fishing and

NEW DURABLE CARDS FOR 2021!

DAVE WHITLOCK
Crappie
"Morning in the Cedars"

RATHER B. OUTDOORS
CID: 841878326 F Apprentice
Res. Fish
Res. Waterfowl
Res. Hunting
Res. Trapping



NORA HALL
Elk
Oklahoma Animal Series

Oklahoma hunters and anglers have often said they wish the paper hunting or fishing licenses they carry in the field were more durable. Well, now that choice is here! The Wildlife Department's durable collector's license cards are the answer.

These stylish collectible cards allow you to carry up to nine licenses, encoded on one long-lasting card that fits in your pocket. And each one features the work of an Oklahoma wildlife artist.

New cards with different artwork are issued periodically, usually every year, and are sure to become your badge of support for Oklahoma's outdoor heritage.

The durable license cards for 2021 are now on sale. One card features artwork of a bull elk, created by Nora Hall as part of her Oklahoma Animal Series. The other card features "Morning in the Cedars," created by Dave Whitlock, which shows an Oklahoma angler favorite: crappie. Both artists are featured on *Outdoor Oklahoma Journal*, the Department's blog at www.wildlifedepartment.com/OOJ.

Be sure to harvest one — or both — of these cards today! To order, log on to the Wildlife Department's Go Outdoors Oklahoma license system at license.GoOutdoorsOklahoma.com and click "Print Licenses." Even lifetime license holders can order one of these classy artistic cards. And if you are getting a new license or renewing, you will have the option to choose a collectible card.

Proceeds from card sales help fund the Wildlife Department's efforts to recruit new sportsmen and women, and its to conserve and protect the state's fish and wildlife resources and habitat. 🌿

Hunting Regulations, viewable at www.wildlifedepartment.com/law/fishing_guide or on the Go Outdoors Oklahoma mobile app.

Ask an Angler Virtual Fishing Courses: This video series is another way anglers can stay in the loop on relevant fishing topics. The courses are being held online once a month and touch on fishing tips that pertain to that particular time of

year. Those who attend the live event can have their questions answered in real time. Each event is recorded and available later for viewing at www.wildlifedepartment.com/fishing/ask-angler-virtual-fishing-courses-archive.

Go to the Fishing Resources webpage to register for these upcoming virtual courses:

- Ask an Angler Virtual Course: Spawning White Bass Fishing Tips,

1-3 p.m. March 9, YouTube Live.

- Ask an Angler Virtual Course: Spawning Black Bass Fishing Tips, 1-3 p.m. April 6, YouTube Live.
- Ask an Angler Virtual Course: Sunfish Fishing Tips, 1-3 p.m. May 11, YouTube Live.
- Ask an Angler Virtual Course: Spawning Catfish Fishing Tips, 1-3 p.m. June 8, YouTube Live.

Outdoor Oklahoma Journal:

Find informative fishing articles and videos on the Department's blog at www.wildlifedepartment.com/OOJ/fishing. ODWC's Education section has created short videos related to fishing that are posted in the OOJournal. Here are some of the topics:

- How to Tie a Fishing Knot.
- How to Teach Someone to Cast a Spincast Rod & Reel.
- How to Catch Fish Trolling with Crankbaits.
- How to Choose a Proper Life Jacket.
- How to Catch Sunfish — The Ultimate Guide.

Outdoor Oklahoma TV Show: Over the years, the Department's TV show has produced many episodes focused on fishing fundamentals. Here are some of those that can be viewed at www.youtube.com/outdooroklahoma:

- **Basic Worm and Bobber Fishing Setup (With Knots):** Learn how ODWC's aquatic education coordinator sets up fishing rods for success. Also learn how to tie the improved clinch knot and the palomar knot.
- **Fishing With 9-year-old Nate:** It's the heartwarming story of a young man who teaches himself how to fish by watching YouTube videos. Then he gets to go fishing with a special Game Warden.
- **First Time Fly Fishing:** Former ODWC employee Rachel Bradley fly fishes for the first time and catches her very first trout on camera. Rachel shows us fly fishing is fun and simple! Join her on the Lower Mountain Fork River in Beavers Bend State Park.
- **An Introduction to Basic Fishing Equipment:** Visit with a tackle shop professional about various types of reels, hooks, bobbers and weights to help get you started fishing.
- **How to Clean a Sand Bass:** White bass (sand bass) are some of the best-tasting fish you can eat, if filleted properly. Learn how to quickly and easily clean a sand bass
- **How To Get Started Fishing!:** Follow ODWC's Aquatic Education Coordinator as he explains the techniques he uses at family fishing clinics. Explore a worm distributor in Oklahoma, and a

fishing tackle shop for some basic tools to advance your fishing skills

- **Ponca City Fly Fishing Teacher:** A high school English teacher teaches his students about his love for fly fishing through literature.
- **Mentoring, Spring Fishing and Catfish Management:** In this episode, we bring you three unique segments that highlight mentoring, tube fishing and fish management. In our first segment, we follow along with a middle school teacher who takes two of his students fishing for the first time. Segment two, we join two fishing friends as they target spawning red ear sunfish with fly rods. We close the show with a look at what our fisheries biologists are doing to monitor the tremendous blue catfish population on Lake Texoma.

Where to Fish: Having a place or two for fishing is a necessity if you are mentoring a new angler. Luckily, there are plenty of places to fish in Oklahoma. This state has more shoreline (11,600 miles) than the Pacific, Atlantic and Gulf coasts combined! Here are some suggestions:

Close to Home Fishing Waters: More than 40 Close to Home Fishing sites are found in communities across the state. These are very convenient spots "just down the street" where people can fish and have



What a catch! Mentor Garrett Harley makes sure to boat the bass that 9-year-old Nate reeled in. Watch this story on Outdoor Oklahoma TV at <https://youtu.be/Bh2CLlpru34>.

success. ODWC regularly stocks these sites with sunfish and catfish. And most sites have fish feeders to serve as attractors and up the odds of making a few catches. For more information, go to www.wildlifedepartment.com/fishing/wheretofish/cth.

Municipal Lakes: Many medium and large cities and towns in Oklahoma operate municipal lakes, often as sources of drinking water. And most of them do allow fishing at these lakes, usually with required city permits. Some examples: Sportsman's Lake near Seminole, Bixhoma Lake near Bixby, Bell Cow Lake near Chandler, Clear Creek Lake near Duncan, Lake Overholser in Oklahoma City, Lake Yahola in Tulsa, and many more. Check with the communities nearest you.

ODWC Fishing Lakes: These smaller lakes are maintained and stocked by the Wildlife Department for public fishing enjoyment. A map of these lakes is included with this article. For details, go to www.wildlifedepartment.com/fishing/wheretofish/odwc-lakes.

Public Lakes and Reservoirs: While not a recommended place to take a brand-new angler, you might decide one of the state's larger water bodies is most conducive to your mentoring needs. The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and U.S. Bureau of Reclamation operate dozens of large lakes, mostly in eastern Oklahoma. Look up the websites of these agencies to find out more about the waters they manage for public recreation.

Lakes of Oklahoma Atlas: When looking for a place to go, it always helps to study the maps! Get some great ideas where to fish on a particular lake by checking out all the maps in this great resource at www.owrb.ok.gov/news/publications/lok/lok.php.

So, do you have what it takes to mentor a new angler? Why not make it a commitment to share your passion now so that it can live on with someone else in the future? Remember the basics:

Take a new angler fishing during good

weather on small bodies of water at the most productive times of year.

Keep the equipment simple: bait and bobber, or small, steady retrievable lures.

Teach your new angler to be self-sufficient: how to tie knots, bait a hook, cast and reel.

Provide encouragement during moments of failure.

Stay patient and positive.

Reinforce good experiences by taking new anglers out as often as possible.

A new, self-sufficient angler can be made in as little as a summer, with a good mentor leading the way. And just remember that the most important aspect of mentoring is that with our help, we're passing along a heritage that will endure for generations to come. 🌿

(Contributors to this article: Skylar St.Yves, Don P. Brown, Michael Bergin, Daniel Griffith, Recreational Boating and Fishing Foundation.)



Lake Carl Etling is a Wildlife Department fishing lake in Cimarron County.

WHERE TO GO? ODWC FISHING LAKES

The Oklahoma Department of Wildlife Conservation maintains 16 lakes throughout the state for public fishing. The lakes provide good fishing, primitive camping, limited hunting and watchable wildlife opportunities. The lakes range in size from 30 acres to 263 acres.

The Wildlife Department's Fisheries Division manages these lakes to provide sustained quality fishing over the years. The Fisheries Division annually stocks catchable-size channel catfish in all the lakes and monitors the fish populations for age and growth rates, species composition and possible applications of new management techniques.

Boat ramps are found on nearly all of the lakes, and the Fisheries Division has provided brush piles in some of the lakes to concentrate fish for anglers.

Some ODWC fishing lakes have special restrictions, so be sure to check the Oklahoma Fishing and Hunting Guide section on Special Area Regulations before heading out. 🌿



MAP KEY

- | | |
|------------------------|---|
| 1. Lake Carl Etling | 11. Lake Jap Beaver (currently undergoing renovation) |
| 2. Lake Evans Chambers | 12. Lake Nanih Waiya |
| 3. Lake Vincent | 13. Lake Ozzie Cobb |
| 4. Lake Watonga | 14. Lake Schooler |
| 5. Lake Elmer | 15. Lake Raymond Gary |
| 6. American Horse Lake | 16. Doc Hollis Lake |
| 7. Lake Vanderwork | |
| 8. Lake Hall | |
| 9. Lake Burtschi | |
| 10. Lake Dahlgren | |



KELLY BOSTIAN

Dave Whitlock holds his artwork "Crappie in the Cedars" that adorns one of ODWC's 2021 collectible durable license cards.

FAMED FLY FISHER'S ART AGAIN GRACES ODWC LICENSE COLLECTOR'S CARD

By Kelly Bostian, KJB Outdoors

A few days shy of turning 86, Dave Whitlock looked to the sky after a shoreline lunch. The "background music" was the trickling of a clear-water stream and the soft breezes whispering through an early November kaleidoscope of leaves overhead.

He declared it a fine day to do nothing more than breathe it all in.

"It all" encompasses this man's view colored by a lifetime of experience outdoors that few in the world can match, including having his artwork featured for a second time on the Oklahoma Department of Wildlife Conservation's durable collector's card fishing license.

Whitlock's "Crappie in the Cedars" is the image selected to appear on the 2021 version of the fishing card. Any Oklahoman who opted to buy one of the inaugural \$5 durable cards in 2018 might know that "Dragon Slayer," depicting a largemouth bass jumping out of the water toward a dragonfly, was also Whitlock's creation.

Those who get one of the new fishing cards will be familiar with the scene depicting the underwater world of one of Oklahoma's most-popular game fish. But in the Muskogee-born artist/angler's home state, not many people recognize the man behind the art. That isn't the case for people living in the fly-fishing meccas worldwide.

A world-renowned fly-fishing angler, fly-tying legend, instructor, artist, author, and inventor, Whitlock's name is in

several fishing-world halls of fame. He and his wife, Emily, are a fly-fishing instruction power couple who truly could live just about anywhere they wanted as — long as the fishing was good.

The "Dave and Emily Whitlock" moniker is known internationally. They have fished streams and instructed anglers everywhere. Television shows, instructional videos, lecturing tours — they have done it all. But they choose to call a little slice of heaven in southeastern Oklahoma home. And they offer private fly-fishing lessons there, too.

A spring-fed trout stream meanders across the front of the property, and the fishing instruction pond is the main feature out back. John T. Nickel, Whitlock's childhood friend, owns the surrounding Caney Creek Ranch. Whitlock's home is a stone's throw from the creek where he and Nickel caught their first Neosho smallmouth bass on fly rods more than 70 years ago.

"I've been to a lot of places, but Oklahoma probably offers as good an opportunity for catching fish on a fly rod as any state I've been in," Whitlock said. "You have to make that mental



KELLY BOSTIAN

Dave Whitlock enjoys fly fishing at his southeastern Oklahoma home near Welling.

adjustment and be happy with both warm-water and cold-water fishing, but I can't think of a place where a person can catch more fish species on a fly. We have largemouth bass, smallmouth bass, spotted bass, five or six species of sunfish, crappie, drum, carp, walleye, sauger, all the temperate bass like striped bass and white bass, and more than that. It's a hell of a lot more than just trout."

The Neosho strain smallmouth bass of eastern Oklahoma's clear-water streams are still a favorite.

"That's what I love about this area. We have all these streams that provide trout-like waters, but they are home to those smallmouth. I love 'em," he said.

Those old days on Caney Creek and pre-reservoir days along the Grand and Illinois rivers were ripe for a pair of teen-aged self-taught fly fishermen in the 1940s.

"You couldn't hardly describe it to somebody now," Whitlock said. "You couldn't understand how many fish could live in there. For every fish now, there must have been 25 to 50 then. I don't know how the food chain held up with that many bass in those streams."

At the root of a life's work inventing flies, creating art, and teaching fly fishing is a kid who pushed through a birth defect, polio and rheumatic fever in the first four years of his life only to be bullied by other grade-school kids because, as he put it, "I was pretty much physically an invalid in my pre-teen years."

"Kids can be cruel to handicapped people and I grew up not liking people much," he said. "I was always happy in nature because it was always peaceful and good to me."

That upbringing also created someone who exercises daily and eats healthy, seldom needs to see a doctor, and who is studious, imaginative, inventive, and who has made great friends all over the world.

His fly fishing, fly tying, and artistry are all self-taught skills and seemed to come as naturally to him as making friends.

He graduated from Northeastern Oklahoma State University and went to work as a research chemist in the petroleum industry early on. But his skills as an angler and artist led him out of that career at age 30.

For the bulk of his career, Arkansas' famed White River was his base of operations, which included a seven-year research effort that resulted in the invention of the Whitlock-Vibert Box System, an in-stream salmonoid egg incubator and nursery device credited for boosting the White's brown trout to world-record fame. The boxes have been used around the world in trout and salmon species conservation project, including in Oklahoma's Lower Mountain Fork River.

The world-renowned angler never strayed far from home, really. "You stay close to your roots," Whitlock said. "For fly fishing

back then, you had to be close to cold water and trout. And so the White River was the place. ... But we were only about five hours from home."

Creating the original and effective fly patterns that still bear his name — such as the Dave's Hopper — was essentially an extension of his artistic skills, he said.

"Basically, that's what fly tying is, just another form of artistic sculpture. You're working in three dimensions with thread, hair, feathers, and a hook, and you just build with them to create the illusion of an insect or a crawfish or baitfish," he said.



Dave Whitlock works on a sketch in his home art studio.

His first motivation to draw came from his grandmother. While at home with his childhood illnesses, they would play a drawing game. "She would make a couple lines on a piece of paper, and then I had to draw from it to make something. Then I would draw a couple lines for her," he said.

His only formal art training came from public schools, the last of which was as a senior at Muskogee High School.

"My art teacher at Muskogee said my art would never amount to anything because what I wanted to do with my art, a camera could do

a better job," he said with a chuckle. The teacher simply did not appreciate Whitlock's vision, especially after he first donned a facemask and snorkel.

"The first time I ever looked underwater with a facemask, I discovered another planet. ... I thought, 'I've got to show this to people!'"

His paintings may feature fish as the leading characters, but a closer look reveals a full environment teeming with smaller fish, tiny insects, crustaceans, and other fauna and flora typical to the habitat of the featured species. Look closer yet and you might notice a little character, even in the eye of a mayfly or crawfish.

"I see a personality in every creature," he said. "I've come to believe that every living thing has some form of a soul, whether it's a tree or an ant or a trout. They possess some form of a soul — not like ours, but if you watch them, they exhibit certain ethics. They have their role in life, and they live it."

He gestured toward the stream and spoke of a whole world of things going on in the water with minnows and crawfish and insects all doing what they have adapted to do in their life cycles.

"Every square inch of our planet is like that," he said. "I tell ya, people who don't see things or don't like things in nature, they miss a lot in life." 🌿

(Kelly Bostian has been an outdoor editor and writer for 35 years at newspapers in Fairbanks, Alaska, and Tulsa, Okla. He now operates KJB Outdoors, sharing articles about outdoor recreation and nature.)



Naturally Curious

Mobile App Gives Youngsters Fun Way to Learn, Contribute

By Whitney Jenkins, Communication and Education Technician

Having the opportunity to enjoy the outdoors is something I treasure. Whether hunting, fishing or simply going on a hike, taking in all that nature has to offer is among my favorite pastimes. What's even better than being outdoors is instilling in my children an appreciation for time and space outside.

I realized when they were very young that my girls Cheyenne, 12, and Audrey, 9, truly loved being in nature. Any opportunity we get to be outside, we take it, even if it's just a quick picnic for lunch. Being outdoors is our time to slow down in this busy life and take it all in.

One thing I realized when I moved from a rural area to a city was that you didn't have to travel far to just get outside and explore. You just have to look a little bit harder and maybe in some different places to find whatever you are looking for.

In a rural area, it's easy to walk out your back door and go for a hike and experience wildlife and everything nature has to offer. But if you're in the middle of a city, you may have to get creative. My girls were going to explore, and it didn't matter where we were. I just had to keep up! They were going to make the best of it and capture everything along the way. And you can, too! Get outside and explore, you never know what you might find!

It wasn't long before my oldest daughter, Cheyenne, was asking for my smartphone while we were out exploring. She was always taking pictures with my phone's camera. Later, she would proudly show me the



WHITNEY JENKINS/DWIC

Audrey and Cheyenne enjoy exploring the outdoors.



Cheyenne zooms in for a closeup of a turtle's shell.

WHITNEY JENKINS/DWIC

pictures she took, reminiscing of what she experienced while in the outdoors.

It also didn't take long for me to notice that they were actually good photos she was taking. She not only had an eye for a great shot, but she was constantly looking for the next critter or flower to capture with the camera. Being outdoors became more than just running outside.

"Where is the next animal track going to be? If we are quiet, we might see some wildlife. What kind of flower is that, Mom?" These are things the girls would say to me. This also kept me on my toes.

Little sister, Audrey, would be right on Cheyenne's heels exploring. Audrey's favorite book became one about animal tracks that we had found in an old bookstore. This book helped feed both girls' curiosity and engagement.

After an outdoor adventure, we will sit and discuss what we saw. We will scroll through the pictures Cheyenne took, and many questions would arise. But many of those questions that seemed simple were questions for which I didn't have the answers. So, I explored ways to keep Cheyenne engaged.

I discovered iNaturalist.org. One of the world's most popular nature apps, iNaturalist helps users identify the plants and animals around them. Cheyenne already enjoyed recording her findings in the outdoors. Now, she could share them in an online social network of people sharing biodiversity (the variety of life in the world or in a particular habitat or ecosystem) with information to help each other learn more about nature.

Cheyenne began contributing to iNaturalist. While we were exploring and spending quality time together, she was learning about her surroundings and sharing those findings with others. Her photos became more than just



It's an animal track, but what kind?



Connecting People, Nature Is iNaturalist's Primary Goal

One of the world's most popular nature apps, iNaturalist helps you identify the plants and animals you find. More than 1 million scientists and naturalists are connected to help you learn more about nature. By recording and sharing your observations, you'll create research-quality data for scientists working to better understand and conserve nature.

At its core, iNaturalist is an online social network for sharing biodiversity information to help others learn about nature. It's also a crowdsourced species identification system and an organism occurrence recording tool. You can use it to record your own observations, get help with identifications, collaborate with others to collect this kind of information for a common purpose, or access the observational data collected by iNaturalist users.

Even though it might seem very scientific, the primary goal of iNaturalist is to connect people to nature, getting them to feel that the non-human world has personal significance and is worth protecting.

The app's secondary goal is to generate scientifically valuable biodiversity data users' natural encounters. The operators of iNet believe they can achieve both of those goals simultaneously and that they reinforce one another.

The iNaturalist.org website began as a Master's final project by Nate Agrin, Jessica Kline, and Ken-ichi Ueda at University of California-Berkeley's School of Information in 2008. Nate and Ken-ichi continued working on the website after graduation, with some additional help from Sean McGregor. Ken-ichi began collaborating with Scott Loarie in 2011, when they organized as iNaturalist LLC and began expanding the site through numerous collaborations. In 2014, iNaturalist became an initiative of the California Academy of Sciences and a joint initiative with National Geographic Society in 2017. 🌿



WHITNEY JENKINS/SHUTTERSTOCK



Flowers are fair game for iNaturalist submissions.

photos; now they were observations that documented living things at a specific place and time. She was also helping others, as her observations were shared globally with a community of naturalists who could identify and discuss these species. Cheyenne was contributing to science!

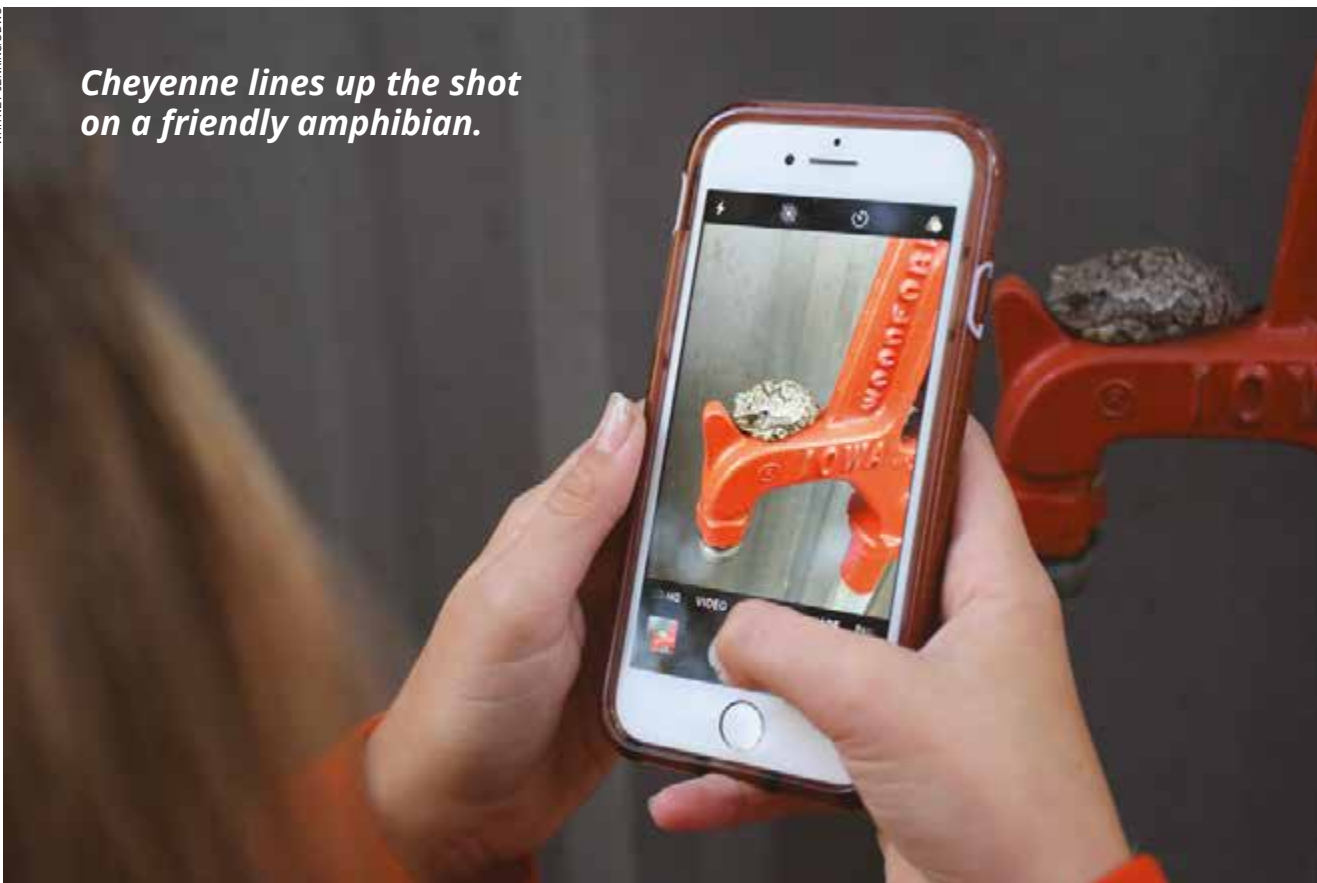
Just imagine the excitement from this little girl's view. She wasn't just sharing her explorations with Mom from the hike they just went on. She was sharing around the world and getting feedback! She was becoming a naturalist and making observations. She could now become a citizen scientist or join in on a Bioblitz survey!

The iNaturalist app made it easy to keep Cheyenne engaged and learning about something she was already doing. Plus, she had answers to her questions. It's simple to use, too. We just downloaded the iNaturalist app. Once logged in, she could start sharing her observations and getting feedback right away.

Spending quality time together as a family is something I strive for as a mother. Being present and engaging with my children in this modern world can be a challenge. To think of using an app and a smartphone to get more connected with nature and with my kids doesn't seem obvious. But combining the two worlds of technology and nature has created a bridge that is expanding our knowledge of the outdoors and our time together in it. We look forward to our next adventure.

So, get your loved ones outside and see what observations you can find. You might just be surprised by your surroundings and excited by the biodiversity you can find. 🌿

Cheyenne lines up the shot on a friendly amphibian.





Audrey and Cheyenne find happiness in nature and are always ready for their next outing.

Conservation

Get Outdoors!

Springtime is one of the best times to get outdoors because nature is coming alive after a long, cold winter. There is plenty to see and explore. Why not keep track of what you see by starting a Nature Journal? You can go out in your yard, or maybe to a nearby park, just to see what natural items you might find, like bugs or flowers or birds. And when you see something cool, write about it in your Nature Journal. It's also fun to draw a picture of what you found. Add whatever you want, because It's your Nature Journal!

Hunting Tip

Spring turkey hunting season arrives during April and May! There are two days reserved only for kids to hunt before everyone else can. Have you ever been turkey hunting? When you go, make sure to wear hunter orange when you are walking into or out of the hunt area. And never shoot at only a sound or a movement; you must see the entire bird to determine whether it is safe and legal to shoot.

Fishing Tip

Do you know how to tie a hook, lure or swivel to your fishing line? Fishing knots are special because they do not create sharp angles in the line, which can cause the line to break. Learn about knot tying at www.wildlifedepartment.com/oaj/video-how-tie-fishing-knot.

for Kids!

Word Search: Oklahoma Fish

H	L	T	O	R	C	Y	A	L	M	G	T	H	E
S	T	R	I	P	E	R	A	B	B	H	R	E	H
T	N	I	H	M	S	C	P	L	W	L	F	E	T
I	L	L	A	A	W	R	O	L	A	F	F	U	B
T	B	B	T	L	N	A	U	L	R	P	S	G	R
H	E	H	F	S	U	P	R	O	A	E	U	S	I
M	G	H	M	N	U	P	S	R	H	Y	N	A	T
W	R	L	T	L	R	I	S	O	I	E	F	L	R
R	A	G	C	G	L	E	H	R	U	L	I	U	O
S	M	A	L	L	M	O	U	T	H	L	S	U	U
H	T	U	O	M	E	G	R	A	L	A	H	H	T
M	E	H	E	U	T	S	P	R	B	W	O	L	H
S	T	M	W	H	I	T	E	B	A	S	S	A	T
H	S	I	F	T	A	C	W	C	A	R	P	P	A

Find the names of these fish that can be found in Oklahoma:

White bass

Gar

Crappie

Cattfish

Largemouth

Walleye

Buffalo

Carp

Smallmouth

Sunfish

Striper

Trout

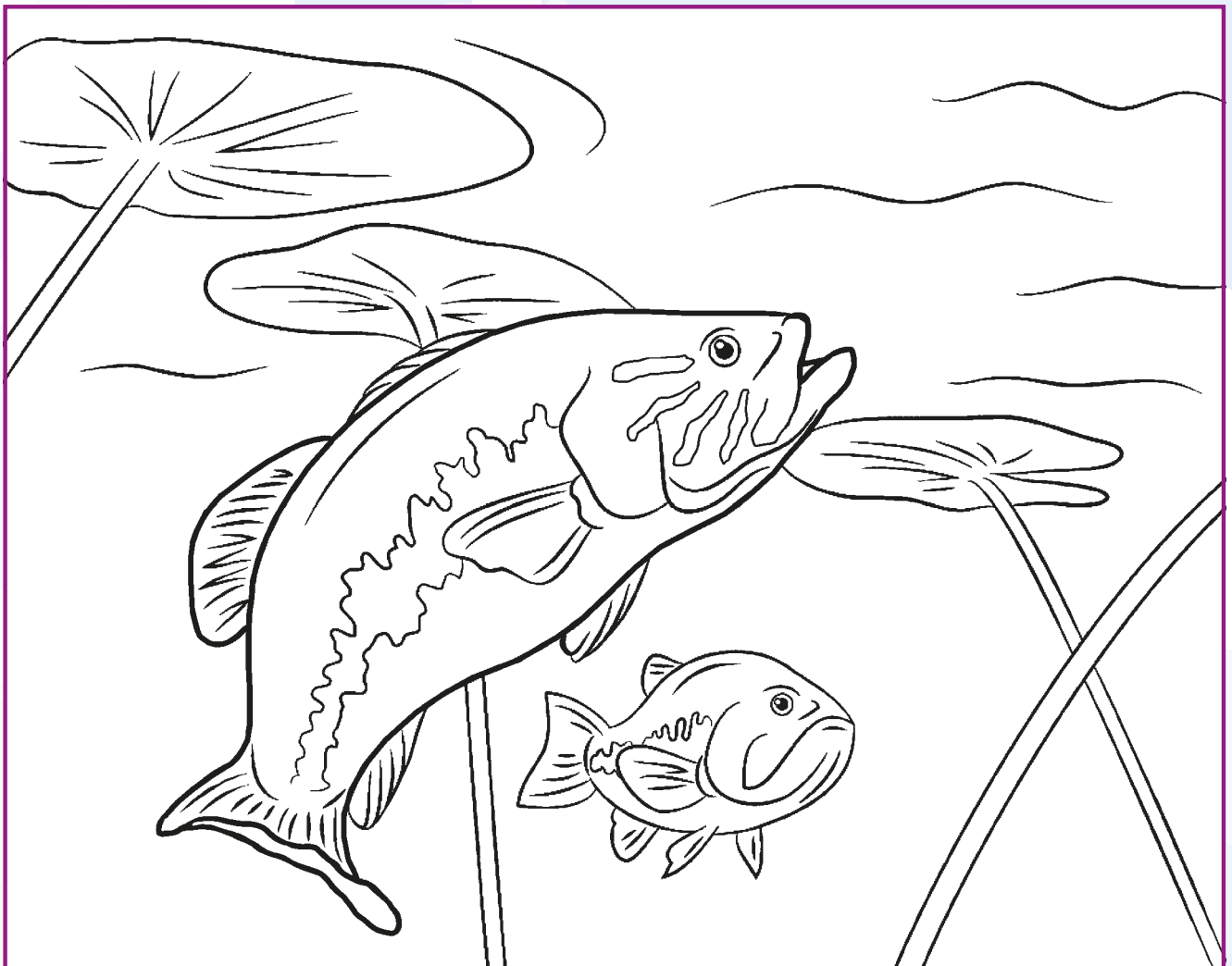
Some COOL FACTS about the Largemouth Bass:

- Lives in freshwater lakes, streams and ponds across the entire country.
- Usually olive green with a dark stripe along its side and a whitish belly.
- Mostly eats smaller fish like shad, sunfish and minnows.
- Sometimes might eat crawfish, frogs and even small water birds.
- Usually considered the top, or apex, predator wherever it lives.
- The most-sought-after game fish in the United States.
- Can see in color and is highly attracted to red.
- Begins life by hatching from eggs as fry that are about 3mm long.
- Can live about 10 to 16 years depending on its environment.
- Can grow to weigh more than 20 pounds in some parts of the world.
- Oklahoma's state record largemouth bass, caught in 2013, weighed 14 pounds 13.7 ounces.



NEIL DEMASTER/FLOKOR CC-BY-NC-ND2.0

Color a Critter: Largemouth Bass



THEY CAME FROM OUTSIDE THE STATE!

Enlist in Battle Against ANS Army



EDITOR'S NOTE: ODWC created its Aquatic Nuisance Species Program in 2008 to help educate the public on invasive species in Oklahoma. While Oklahoma waters are teeming with plants, invertebrates and fish, some of these species are not native and are classified as invasive. Knowing how to identify and help prevent the spread of invasive species is crucial in helping reduce them.

By Curtis Tackett
Fisheries Biologist

Oklahoma has plenty of opportunities when it comes to spending time in the great outdoors, especially having fun in the sun on a lake, river or stream. On a landscape scale, Oklahoma is among the states with the most miles of shoreline, which includes lakes, small streams, large rivers and farm ponds.

For example, there are almost 3,000 lakes and ponds that are 10 acres or greater in size, resulting in more than 10,000 miles of shoreline.

Oklahoma's vast array of aquatic habitats come with high aquatic species diversity. However, with this great amount of habitat and rich species diversity also comes many threats to these habitats and the native species that occupy them.

Posing a significant threat are Aquatic Nuisance Species (ANS). They come in many shapes and sizes. ANS are nonnative species that have the potential to cause economic and ecological detriment to the environment, including negative impacts to native species that we cherish.

From nonnative freshwater mussels to invasive carp species to microscopic algae, all pose huge threats to our aquatic ecosystems.



Silver carp leap out of the water during an electrofishing survey on a river in the midwestern United States.

Zebra mussels (*Dreissena polymorpha*) are the most notorious, and they can sweep through a lake or river system in a very speedy manner, causing issues throughout. These freshwater bivalve mollusks have a special capability that most other freshwater mussels do not: They can adhere to objects with small projections called byssal threads. This is one of the main reasons they can wreak so much havoc outside of their native range.

Since this species is a filter feeder, it will use its byssal threads to anchor to an object and filter plankton from the water column. Imagine a water pipe with flowing water that is infested with millions of tiny zebra mussels taking advantage of the flowing water to bring them food. Once this pipe becomes jammed with zebra mussels, the water cannot flow properly. Cleaning the mussels out of the pipe can be very expensive.



A U.S. Geological Survey employee holds a bighead carp, which is a non-native invasive in Oklahoma.

ZEBRA MUSSELS



ALEXANDER HARDY/USFWS

A cluster of zebra mussels attached to a pier.



Zebra mussels will attach to different types of infrastructure such as dams, water intakes, and pipelines. Costly removal is necessary so these types of structures are not compromised.

These mussels also adhere to rocky substrates, which can destroy habitat for other aquatic species and decrease spawn-

ing opportunities for some fish species. Zebra mussels have also been known to attach to native mussel species and smothering them as a result.

Currently 23 lakes in Oklahoma have known zebra mussel populations, with Hefner, Canton, Waurika, and Foss lakes being invaded in the past five years. People who use the state's lakes and rivers must do their part and take steps to prevent ANS spread to other water bodies. Once they become established, it is nearly impossible to eradicate entire reproducing populations.

There are also invasive fish species that have taken residence in Oklahoma. The most prolific are the **bighead carp** (*Hypophthalmichthys nobilis*) and **silver carp** (*Hypophthalmichthys molitrix*). These are two of the Asian carp species brought into the United States in 1970s to control undesirable plankton in aquaculture ponds and improve water quality.

These fish quickly escaped into the nearby rivers and streams, and have invaded almost the entire Mississippi River Basin through rapid range expansion. These two species are wreaking havoc throughout the eastern half of the country and can now be found in more than 15 states.

These carps reproduce at very high rates; a single female fish can produce millions of eggs per year. These fish also can nearly erase the bottom of the food web by removing large amounts of phytoplankton and zooplankton, resulting in low productivity in a particular system. This in turn results in poor biological diversity, because those food sources are not available for native species.

Silver carp are also dangerous to people because of their ability to jump several feet in the air when disturbed. Boaters get injured every year by these jumping carp.

Bighead carp have been documented in Grand Lake and the inflowing Spring and Neosho rivers. Both species have invad-

SILVER & BIGHEAD CARP



Silver Carp



ed the Red River and its tributaries including the Kiamichi, Blue, and Boggy rivers.

The Oklahoma Department of Wildlife Conservation and partners such as the U.S. Fish and Wildlife Service are dedicated to management of these populations because of the great ecological threat they pose to our native fish populations and aquatic resources.

ODWC is supporting a project that the Kansas Department of Wildlife, Parks and Tourism is funding with researchers at Missouri State University to assess the population of bighead carp in the Neosho River system and Grand Lake. This project will help to determine spawning locations throughout this system, which will help managers pinpoint the source populations for potential future removal efforts.



Comparison of silver carp (top) and bighead carp.

HYDRILLA



DAVID MOORHEAD/UNIVERSITY OF GEORGIA

WHITE PERCH



WILLI PARSONICHES/PEAKE BAY PROGRAM

DIDYMO ALGAE



CENTER FOR INVASIVE SPECIES RESEARCH/UC RIVERSIDE

ODWC is funding a project with Auburn University to assess the population status of bighead and silver carp in the Red River and its tributaries, as well as their impact on native fish communities.

Both of these projects will be kicking off field work this year.

Other aquatic nuisance species have invaded Oklahoma over the years including golden algae (*Prymnesium parvum*), white perch (*Morone americana*), didymo algae (*Didymosphenia geminata*), hydrilla (*Hydrilla verticillata*), and many others.

Several invasive aquatic plant species have been found in Oklahoma, with **hydrilla** being one of the most aggressive. Hydrilla has become established in a few lakes in Oklahoma and aggressively grows to form large dense mats of plant communities that top out at the surface of the water, making it virtually impossible for boats to navigate through it.

The plant also has negative ecological impacts as it drastically reduces sunlight penetration into the water, causing a localized reduction in dissolved oxygen. Because the plant is so aggressive, it also creates a monoculture plant community and reduces aquatic plant diversity.

Didymo algae is a diatomic algae species that has the potential to form dense mats along the substrate of a stream or river. These dense mats, which have the consistency of wet tissue, essentially smother aquatic life on the streambed. It can eliminate the aquatic invertebrates that some fish species rely on for food.

Didymo prefers year-round cold-water streams, so there are few places it can thrive in Oklahoma. One of those places is the Lower Mountain Fork River below Broken Bow Lake.

White perch are native to the Atlantic coast of North America but have become established in some lakes within the interior part of the country, including a few lakes including Sooner and Kaw in Oklahoma. This species closely resembles the white bass, Oklahoma's state fish, but it does not grow to a desirable harvestable size. Adult white perch rarely exceed 8 inches in length.

This fish is an egg-eating specialist and can prey on eggs from desirable sport fish populations including walleye, saugeye, white bass, and others. ODWC biologists are studying these impacts to native fish species to assess the damage being done by this invader.

Golden algae is a microscopic plant found in slightly saline waters such as the Red River system and many Gulf states. Under certain environmental conditions, this species of algae can produce ichthyotoxins that result in fish kills. Oklahoma has documented relatively large fish kills associated with golden algae blooms in the past several years.

Unfortunately, once ANS become established, it is extremely difficult to eradicate them. Therefore, natural resource professionals are stuck trying to manage ANS by preventing their spread.

A few simple steps can go a long way. Boaters should always Clean, Drain, and Dry their boats a being on the water.

When fishing, never dump a bait bucket in the lake or river when finished. Either take the bait fish home or dispose of the bait properly in the trash or on land.

When wading, be sure to clean your waders after you have been in the water or dry them thoroughly before using in another water body.

Taking these measures can drastically decrease the odds of spreading ANS throughout the state.

We all must be responsible in caring for our aquatic ecosystems in Oklahoma so they can be enjoyed for generations to come. 🌿



White Perch



ODWC employees paint a reminder on a boat ramp, reminding boaters to help stop invasive species.

Stop the Spread: Clean, Drain, Dry



Boaters, please help your Wildlife Department curb the spread of golden algae and other aquatic nuisance species. You can potentially prevent another impoundment from having a major fish kill by taking three easy steps with your boat: Clean, drain and dry. Trailered boats are the main cause of cross contamination of reservoirs.

CLEAN

Inspect boats, trailers and equipment for mussels or mud, plants, seeds or other organisms from the water and remove them. Then pressure-wash boats, trailers and equipment with hot water (140 degrees).

DRAIN

Water from boats, motors, bilges, live wells, bait containers, coolers and ballasts should be drained or removed.

DRY

If unable to pressure-wash, boaters should allow a thorough drying — at least five days — before visiting any different body of water. 🌿



IMAGE 1: Postcard featuring R.D. Vanderbeek's large paddlefish reportedly speared through the ice on Lake Okoboji, Iowa, in 1916. Note the weight is listed as 185 pounds.

Duplicity? Genetics? Technology?

Parade of Paddlefish World Records Pushes Questions to the Surface

By Jason D. Schooley
Senior Fisheries Biologist
Oklahoma Department of Wildlife Conservation

The largest American paddlefish (*Polyodon spathula*) reported in the scientific literature is attributed to R.D. Vanderbeek, who took the fish by spear in Lake Okoboji, Iowa, in February 1916, as conveyed by J.T. Nichols. The fish's length of 7 feet 1 inch, and girth of 45.5 inches, were reported. However, the reputed weight of 198 pounds was not reported until 40 years later in a book titled "Iowa Fish and Fishing" by Harlan and Speaker (1956). This weight was later cited in a paper by T.W. Gengerke in 1986 and accepted as fact thereafter.

Later editions of "Iowa Fish and Fishing" quietly omitted Vanderbeek's paddlefish as the largest, which casts uncertainty on the validity of this purported record.

I've always doubted this fish tale, mostly because, as the saying goes, "You can't fit 10 pounds of potatoes in a 5-pound sack." In my experience as a paddlefish biologist with the Oklahoma Department of Wildlife Conservation (ODWC), super-sized paddlefish in excess of 100 pounds seem to be nearly stretched to the limits of reason and biological plasticity, ... like a giant tadpole that might pop if it grazed a sharp rock. Piling an additional 98 pounds of paddlefish in there simply seems unfathomable.

So, I dug a bit deeper into the legend of the *Ol' 198'er* and, based on some new insights provided by my paddlefish pals at Iowa Department of Natural Resources, this record seems even more confusing if not dubious.

Multiple sources of evidence cast doubt on the record. For starters, a contemporary photograph of unknown origin (and later used as a postcard) plainly states, in its caption, that Vanderbeek's fish weighed 185 pounds (Image 1). The date, length, and location listed in the caption all match the details in the 1916 Nichols report. Further, the Spirit Lake Beacon newspaper issue from March 2, 1916, (Image 2a) tells the story of Vanderbeek's catch, listing its length as 6 feet 9 inches and girth as 43.5 inches, a substantial deviation from the details relayed by Nichols.

In further disagreement with the literature on this fish but in agreement with the postcard, the newspaper reports the fish to have weighed 185 pounds. Another issue of the Spirit Lake Beacon from a week later, on March 9, 1916, (Image 2b) recounts "A Still Bigger Fish Caught in

The Spirit Lake Beacon

a) March 2, 1916

b) March 9, 1916

A REAL FISH STORY FROM WEST OKOBOJI

Some fish story is right, but the nice part of the story is that the proof lay in state Wednesday and Thursday in the old Whitney harness shop. This fish story is not only the story of the season, it is claimed to be the biggest catch on record for any body of water in the northwest. The fish is a spoon-bill sturgeon measuring six feet nine inches from tail to end of bill. Measures forty-three and a half inches around the biggest part, seventeen inches across the tail, seventeen inch bill and weighs—now get this—185 pounds. This fish was caught Tuesday by R. Vanderbeek who has for years piloted fishing parties about Okoboji. Mr. Vanderbeek was spearing fish through a hole in the ice from his charty which is located at the north end of West Okoboji. He said he first noticed the smaller fish race through the water as though they could not get away fast enough, and then this immense shadow came cutting thru the water. He threw two spears both reaching the mark, and after letting out about twenty feet of line, with another man's assistance succeeded in dragging the fighting monster out of the water. He said that he alone would have been unable to land this fresh water whale.

There have been a number of healthy specimens of this variety of the funny tribe caught in Okoboji heretofore, but this one is said to break all records. Mr. Vanderbeek is on his way to Omaha where he will have the big fellow mounted, so that he may forever display it as a proof that he can tell the biggest fish story of any fisherman or would-be fishermen in these parts.

A STILL BIGGER FISH CAUGHT IN WEST OKOBOJI

Fishing is growing better as time goes on in West Okoboji. Only two weeks ago R. Vanderbeek speared a Spoonbill Sturgeon near the head of West Okoboji lake weighing 185 pounds which was by far the largest ever taken from these waters, but not to be out done in fishing or with fish stories for the coming generations Ben Weise on Monday of this week speared a Sturgeon which tipped the scales at 210 pounds. Ma. Weise's fish is a female wherein the other was a male, and while only measuring 5 feet 7 inches long, 3 inches shorter than the Vanderbeek fish, measures 47 inches by 4 inches larger around with an 18 inch bill.

Mr. Weise was spearing fish in the bay off Pillsbury Point where the water is about fifty feet deep. The fish was about fifteen feet under water but Mr. Weise got her strong with the first spear. Realizing he would have a difficult time landing the fish alone he tied it with about twenty feet of rope and went for assistance. The fish was not difficult to manage at first but when he returned from the shore twenty minute trip up to where Charley Wilson was working it had gained considerable life, and it was only with the third attempt with Charley's assistance that the fish was thrown out upon the ice, where it made things hot for a time.

A deal is on with the Commercial Club of Spirit Lake and Mr. Weise wherein the club will purchase the monster and have it mounted for exhibition. The Vanderbeek fish was sent to Omaha where it is being mounted for exhibition purpose at the Park.

West Okoboji." This piece recapped Vanderbeek's 185-pound paddlefish catch and upped the ante by describing a 210-pound fish captured by Ben Weise using the same method: spear. The Weise specimen was described as 2 inches shorter than Vanderbeek's, but with a larger girth at 47 inches. Weise is reported to have heroically speared the fish through not only a hole in the ice but through 15 feet of water. With one shot.

Perhaps the details are exaggerated. Why would Nichols publish a note in a scientific journal in August 1916 about a large paddlefish speared in February, when a much larger fish was speared a mere two weeks later from the same lake?

According to the Iowa Great Lakes Maritime Museum, the largest paddlefish ever was 210 pounds and taken in 1919 from Lake Okoboji, not in 1916. Perhaps the measurements of people of the Okoboji area can't be trusted, as they also claim there is a 140-foot Loch Ness-type monster named "Obojoki" living in their deep lake's waters. A wise old paddlefish researcher told me that the Okoboji lakes are teeming with *Leptodora kindtii*, a large plankton that is a preferred food of paddlefish, and a food that promotes epic growth. So maybe the fish did get super-sized.

It might also be that the legend of the Ol' 198'er is actually folklore as a result of the melding of the two fish stories that hit the popular press within the same week.

Perhaps coincidentally, the integer average of 185 and 210 is 198 pounds. Perhaps it's a far-reaching Iowa conspiracy, but I digress.

The true details of Vanderbeek's (or Weise's?) massive paddlefish catch may never be known a full century after the fact, but the contradictory details surely don't support the notion that this is an official record for the species.

IMAGE 2A: Excerpt from March 2, 1916, Spirit Lake Beacon newspaper (page 6) describing a 185-pound "spoon-bill sturgeon" speared by R.D. Vanderbeek. Image 2B: Excerpt from March 9, 1916, Spirit Lake Beacon newspaper (page 1) describing a 21-pound "sturgeon" speared by B. Weise.



Watch It on TV!

Hear more from Fisheries Senior Biologist Jason Schooley as he looks into recent paddlefish records on the Outdoor Oklahoma TV show, available at <https://youtu.be/r-8BC-D52E0>. Watch Outdoor Oklahoma online anytime at youtube.com/OutdoorOklahoma.

IMAGE 3A: New world-record paddlefish snagged by Cory Watters of Ochelata, Okla., at Keystone Lake on July 23, 2020.

IN MODERN TIMES

On June 28, 2020, James Lukehart of Edmond, Okla., snagged an absolute unit 146-pounds-11-ounces paddlefish from Keystone Lake, a reservoir on the Arkansas River northeast of Tulsa (Image 3B). Only about a month later, on July 23, 2020, Cory Watters of Ochelata, Okla., snagged a behemoth weighing 151 pounds 14 ounces (Image 3A), also at Keystone Lake.

Both of these fish were weighed and measured by ODWC and certified as sequential new state and world records, exceeding the previous state record of 143 pounds set on May 23, 2020, by Jeremiah Mefford (Image 4). Lukehart's fish was stout and tadpole-like, while Watter's fish was a bit more barrel-shaped, as giant paddlefish go. However, both were seemingly testing the potato sack adage mentioned above.

Both Lukehart's large of these giant paddlefish exceeded the previous, widely recognized hook-and-line world record of 144 pounds, taken in 2004 by Clinton Boldridge (Image 5) from an Atchison County, Kan., watershed pond near the Missouri River (www.kansasangler.com/archive/0502riley.html). Unlike the Ol' 198'er, Boldridge's giant fish was verified and documented by the Kansas Department of Wildlife, Parks and Tourism.

Strangely, Boldridge's fish was caught on a dough ball suspended under a bobber. There's no way to know whether the fish took the bait or just lumbered into it with its giant, gaping mouth while it was filter feeding, but the angler reported it was indeed hooked in the

JASON SCHOOLEY/ODWC



IMAGE 3B: New hook and line world record paddlefish snagged by James Lukehart certified at 146.7 pounds on June 28, 2020, at Keystone Lake near Tulsa.



KANSAS DEPARTMENT OF WILDLIFE

IMAGE 5: Previous hook-and-line world-record paddlefish landed by Clinton Boldridge in 2004. The Kansas angler held the world record title for 16 years and the fish was certified by the Kansas Department of Wildlife, Parks and Tourism.

JASON SCHOOLEY/ODWC



IMAGE 4: A 143-pound paddlefish snagged by Jeremiah Mefford (pictured with son Brody) that briefly held the Oklahoma state record until Lukehart's world-record fish was snagged a month later. Both fish were from Keystone Lake.

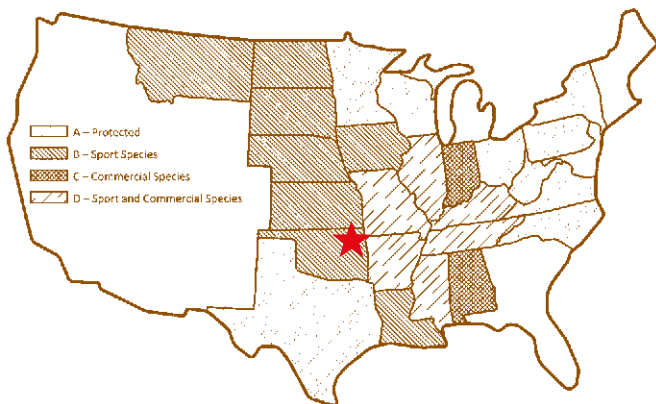


IMAGE 6: The legal status of paddlefish differs among states. Only some states allow sport fishing. The red star marks the location of Keystone Lake.

mouth. Regardless, it was caught on hook and line.

This logically raises a question I've been receiving a lot lately: Who certifies a world-record paddlefish? Well, it's complicated, but I think I can explain.

Most angling world records are maintained by a sanctioning body. For example, the International Game Fish Association (<https://igfa.org>) keeps big-fish records for many freshwater and marine species. But what if a species is not a game fish? Paddlefish is a species with a complex identity (Image 6). It is managed disparately by states within the species range where it might be classified as a sport fish in one state, commercial fish in another, nongame species in yet another, or species of concern in still others. Therefore, the more appropriate question is, "Of the states that allow recreational hook-and-line snagging for paddlefish, which one has the largest state record?" In a sense, the state fish and wildlife agencies are a collective sanctioning body. Given that, an Oklahoma angler now holds the hook-and-line world record for paddlefish at 151.9 pounds.

WATER OF THE GIANTS

In 2018, Oklahoma fisheries biologists netted a 135-pound paddlefish during a survey mission at Keystone Lake. At the time, that fish was 2.5 pounds heavier than the existing state record. (Image 9) That cemented the fact that new paddlefish records were swimming in Keystone.

Watters' record-breaking catch followed a string of large Keystone Lake paddlefish targeted by snag anglers in 2020. The first of these was a putative world record snagged by Justin Hamlin on Feb. 14, 2020 (Image 7). The day of capture was a mandatory catch-and-release day, per Oklahoma fishing statutes. Therefore, a certified weight could not be legally obtained. This fish story of "the record that got away" due to a government bureaucracy was a media darling, as it was featured on multiple national news outlets including Fox News and USA Today.

It is unknown whether the media attention resulted in enhanced fishing pressure (which seems unlikely, at least early on, due to the brewing global COVID-19 pandemic). But four other large Keystone Lake paddlefish would soon follow over the span of months: Mefford's state record, a 138-pound fish caught by Erick Hernandez (Image 8), Lukehart's world record, and finally Watters'



IMAGE 8: Erick Hernandez hoists a paddlefish snagged from Keystone Lake. It weighed 138 pounds, just 5 pounds shy of the state record.



IMAGE 7: Justin Hamlin's gigantic paddlefish was weighed on an unofficial scale at 157 pounds. But certification was not possible because the fish was snagged from Keystone Lake on a catch-and-release day.



IMAGE 9: A 135-pound paddlefish netted by ODWC from Keystone Lake, tagged, and released. The fish, held by Eric Brennan (left) and Trevor Starks, was 2.5 pounds larger than the state record at the time.

Keystone's Large Paddlefish		
Date	Weight (lbs)	Details
4-1-2003	121.2*	Snagged by Shane McCleary. Harvested.
4-10-2011	125.4*	Snagged by Aaron Stone. Harvested.
4-29-2018	132.5*	Snagged by Larry Morphew. Released.
12-6-2018	135.0	Netted by ODWC. Released.
2-14-2020	157 (not certified)	Snagged by Justin Hamlin. Released.
5-23-2020	143.0*	Snagged by Jeremiah Mefford. Released.
6-20-2020	138.0	Snagged by Erick Hernandez. Harvested.
6-28-2020	146.7*	Snagged by James Lukehart. Released.
7-23-2020	151.9*	Snagged by Cory Watters. Released.

Table 1: Summary of large paddlefish observed in Keystone Lake, Okla., and certified by ODWC. Asterisk (*) indicates current or former state record.

Statewide Paddlefish Genetics Assessment

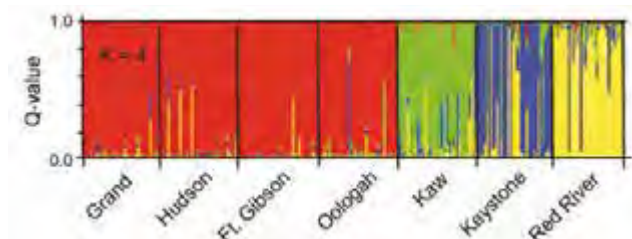


IMAGE 10: Structure plot from Oklahoma paddlefish genetics analysis. Higher genetic diversity is symbolized by more colors within a single stock. Missouri River genetic influences on Kaw Lake are generally indicated by green, some of which has been integrated into the makeup of Keystone Lake paddlefish.

world record (Table 1). Numerous other large fish would follow in 2020, but the record still holds — for now.

The ecology and productivity of Keystone Lake likely yields an environment for growing large paddlefish, but there is also a genetic component. Kaw Lake, the reservoir upstream of Keystone Lake on the Arkansas River, was stocked with paddlefish in the early 1990s. Several thousand of these fish were sourced from Missouri River broodstock, resulting in a lasting introgression of alleles into the already-diverse genetic makeup of the Keystone stock.

In a statewide paddlefish genetics assessment, ODWC found Keystone Lake to have the highest genetic diversity in paddlefish of any Oklahoma reservoir sampled (Image 10). In fact, the diversity was higher than the mainstem Arkansas River, which is open to genetic contribution from migrants originating hundreds or thousands of kilometers downstream. Perhaps it is reasonable that the Missouri River influence on the genetic makeup of Keystone Lake paddlefish contributes to larger size, especially when paired with high productivity (more zooplankton to eat), lower energy demands (calm reservoir versus flowing river), and lower stock density (fewer mouths to feed).

As an aside, Boldridge's fish from Kansas was found to have Missouri River genetics, too. And it lived in a pond with likely low energy demands, high productivity, and little competition — all factors similar to those at Keystone Lake.

As an aside, Boldridge's fish from Kansas was found to have Missouri River genetics, too. And it lived in a pond with likely low energy demands, high productivity, and little competition — all factors similar to those at Keystone Lake.

GAME-CHANGING TECH

These recent captures of exceptionally large paddlefish from Keystone Lake highlight the potential of the stock to grow specimens of large size, but it also demonstrates the rapid evolution in snagging technique and technology.

gy with the advent of the Garmin Panoptix Live Scope™ sonar (www.Garmin.com).

Traditionally, paddlefish snagging was spatially and temporally limited: a springtime season on riverbanks during upstream spawning migrations. For those unaware, snag anglers stand on the bank and use a surf rod rigged with a heavy lead sinker and a large treble hook to cast across a swollen river. The angler sweeps the rod back and forth, while reeling up slack on the return stroke. If the line or hook goes over the body of a paddlefish swimming upstream, the hook is set and the battle begins.

It's a tiring sport to snag for hours. But in the past decade, with the assistance of higher quality, boat-mounted sonar equipment, snag anglers have found fish in more places, deeper waters, and earlier in winter pre-spawn, reservoir areas from November to February. Sweating on the banks while sweeping a rod has given way to sitting on a boat with a cold beer and letting the outboard drag the hook through the water in areas pre-identified via sonar to hold paddlefish. Creative use of downriggers on the line have allowed snag anglers to target fish in deep water many months before the spring spawning run.

The advent of Live Scope™ affords an angler pursuing paddlefish the ability to identify targets through high-definition sonar and actively pursue a paddlefish of choice (generally larger individuals). The high resolution of the technology and the unique profile of this large species result in a high success rate with less uncertainty than when fishing blind in turbid waters (Image 11).

Whereas traditional bank snagging was all about timing and a strong back, and boat trolling with downriggers is about picking the right spots and depth, fishing with Live Scope™ is about absolute precision.

The Oklahoma paddlefish guiding industry has responded in an effort to keep up with the latest technology. Oklahoma anglers report success using Live Scope™ when presenting jigs to crappies on brush piles. Snagging

a paddlefish target, which is orders of magnitude larger than a crappie, likely just takes a bit of practice.

My age doesn't quite qualify me as a curmudgeon, but I can understand if some purists would liken it to more of a video game than fishing. Of course, like any technique, many hours of repetition are required for mastery. Therefore, it's primarily fishing guides using Live Scope™ at this time. But with a proven track record boasting multiple giant fish (including the "one that got away", a state record, a near record, and successive new world records), you could imagine that demand may be high.

This ability to target a moving fish by "sight" in a deep reservoir any day of the year presents additional fisheries management challenges such as warm water temperatures and possible increase in catch-and-release mortality. But this sword has a second edge, because ODWC used Live Scope™ to verify the disposition and immediate survival of several of the giant fish pictured here. It also aided ODWC in deciding to harvest one of the fish based on a low probability of survival.

The future of paddlefish snagging in Oklahoma is uncertain. New technologies bring new challenges for sustainable harvest management and complicate the human dimension. With numerous huge fish snagged in a short span of months, one would expect there might be an even bigger one out there sporting some of those Missouri River genetics. At least that's the suspicion of every would-be record holder looking at their calendar right now and hoping to book a guided trip on Keystone Lake.

Perhaps the real Ol' 198'er is out there lurking in Keystone's depths, waiting for a snagger worthy of greatness to weigh her properly on a certified scale. 🌿

EDITOR'S NOTE: This article has been updated and adapted from The Fisheries Blog at www.tinyurl.com/RecordPaddlefish, where the original article is accompanied by a complete list of cited literature.

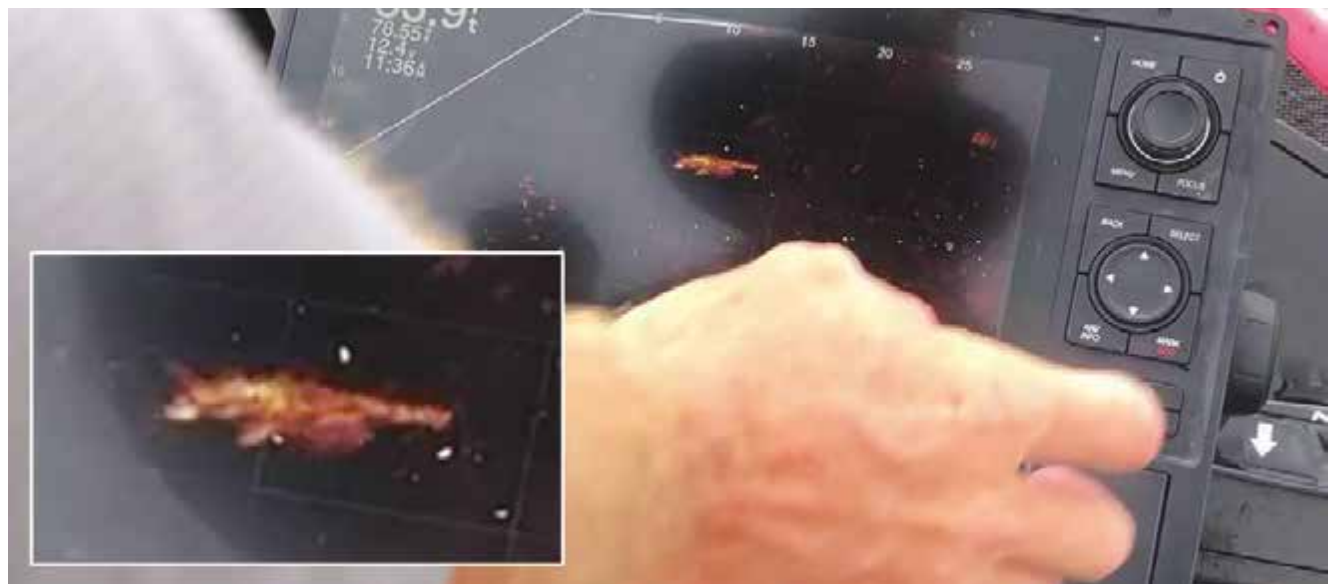


IMAGE 11: Garmin® Panoptix Live Scope™ sonar technology allows paddlefish anglers to identify, pursue, and target large fish with precision, as pictured here with Lukehart's world record fish.



Tulsa Group Shows Physically Disabled The Fun of Shooting

By Don P. Brown, Communication and Education Specialist



DON P. BROWN/ODJ



Walter Scott watches and waits his turn as Tim Wyman takes aim.

A few months before COVID overran the world, the phone rang in the Jenks office of Colin Berg, the Wildlife Department's Education Section Supervisor. On the other end was Vince Olzawski of Tulsa, who is a member of the charitable Mid-America Chapter of Paralyzed Veterans of America (PVA).

Olzawski asked if the Oklahoma Department of Wildlife Conservation could provide some training for volunteers who were getting ready to launch a local program to expand participation in the shooting sports. And Berg was able to offer some details about the Shotgun Training Education Program (STEP), which provides just such training to promote safety and growth within the shooting sports.

The idea to create an adaptive shooting group in Tulsa came to Olzawski in April 2019, when he attended an air rifle competition at the Endeavor Games for physically challenged athletes. He also learned that the National Rifle Association offered an adaptive shooting program.

His goal for the group was to provide any physically challenged person who is capable of shooting and wants



David Skaggs of Bixby keeps watch on the trap field.



Volunteer Julie Norem from Okmulgee receives instruction from Tom Richey of Bethany.



Volunteer Tom Richey instructs DeDe Wyman as her husband, Tim, looks on.

to try shooting the safe chance to do so with training at no expense.

That is how Adaptive Shooting Sports Tulsa, or ASST for short, began. It kicked off in August 2020 with a training session at Tulsa Gun Club, where STEP experts taught 10 volunteers the ins and outs of operating shooting sports events safely.

Adaptive shooting is defined as using any special technique or technology to allow someone to safely engage in shooting sports. The concept extends to those with physical disabilities.

Only two weeks later, ASST held its first shooting event, inviting anyone with physical challenges to show up to learn and experience trapshooting. "We didn't have a lot of shooters sign up, but hopefully they enjoyed themselves," Olzawski said. "The key to any PVA event is to have fun!"

ASST went on to have three training sessions in 2020 at Tulsa Gun Club. Shooters, trainers and volunteers responded, and each session grew little by little.

MAKING IT HAPPEN

One volunteer who signed up from the start is Tom Richey of Bethany. After only five years of competitive shooting, he brings considerable experience as a trainer for the novice shooters. He holds several trophies





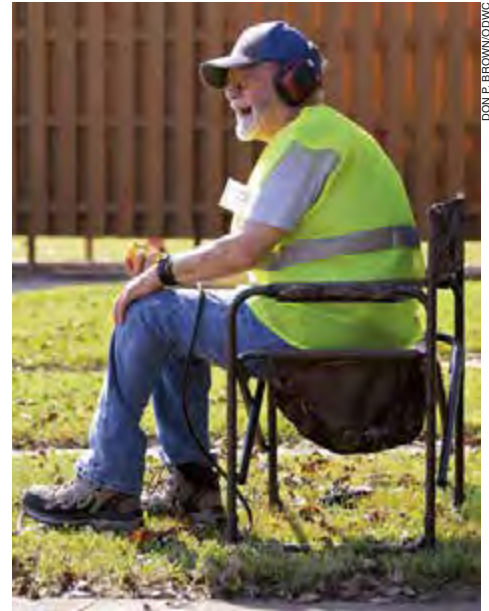
Volunteer instructor Tom Richey of Bethany, a world champion wheelchair division shooter, has helped with ASST since it began.

The volunteer instructors prepare to conduct a hands-on trapshooting education session for participants and volunteers.





DON P. BROWN/DWIC



DON P. BROWN/DWIC

Vince Olzawski enjoys a moment during an ASST event. He is the primary organizer of the program that is associated with the Paralyzed Veterans of America organization.



COURTESY VINCE OLZAWSKI

in trapshooting competition, including a first-place win in the Southwest Zone Regional Shoot of the Amateur Trapshooting Association.

And Richey uses a wheelchair himself.

While Richey has found success in adaptive shotgun shooting, the native Oklahoman's skills were honed with rifles while growing up in California.

"My dad was in the military, and we started on a beach with a BB gun. My dad told me I only got one shot." Plenty of "one shot" practice enabled Richey to hit the mark.

"As I got older in school, in cadet corps, I was on the rifle team there." In competition, he won first place on his team, and then went on to the state finals.

After high school, Richey joined the military and discovered that he needed glasses. Then, during boot camp at Camp Pendleton, he got special notice while training in marksmanship. He was pulled off the firing line and taken to an officer, who told him "that's the best score I've seen in three or four months. Did you ever think about joining the rifle team?" But his potential military career as an expert marksman came to a quick halt. He had volunteered for a nuclear power position and was ineligible to be reassigned.

Shooting was never a priority for Richey during most of his life. After raising three sons and retiring around

2015, he decided he needed a hobby. "Someone told me there's a skeet club. And I thought I can point and pull a trigger pretty good."

Richey became active in PVA, and served as a director in the Oklahoma and Kansas area. That's how he and Olzawski became acquainted, and how Richey eventually became a trainer with ASST.

NEW OPPORTUNITIES

Now it's time for the ASST's second year. And Olzawski has added even more incentive for growth. Sessions to introduce crossbow and muzzleloader shooting have been added. And with more sessions, the need is greater for more volunteer instructors and helpers. Anyone wishing to obtain training and certification as an event trainer may sign up on the ASST website at www.adaptiveshootingsportstulsa.com or email adaptiveshootingsportstulsa@gmail.com.

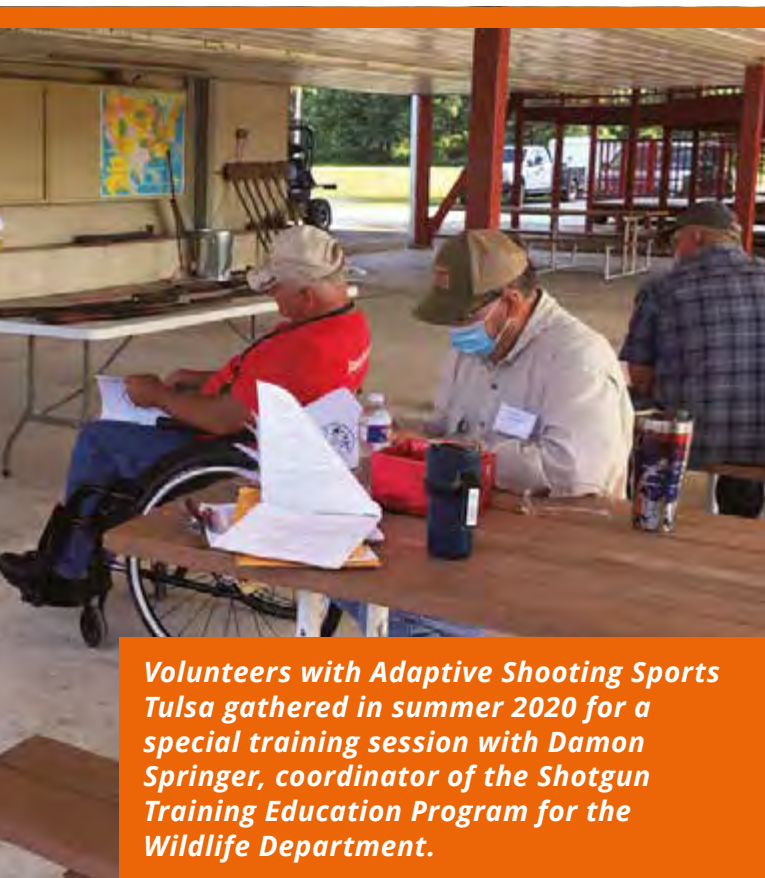
Anyone (veteran or otherwise) who is physically disabled and can handle a firearm is welcome to adaptive shooting and must sign up before the scheduled event at the website or by email. All events begin at 8:30 a.m. Saturdays at Tulsa Gun Club, 8888 E. Mohawk Blvd. N. The tentative schedule for 2021 is:

April 24	Training/certification for helpers/trainers.
May 8	Training with shotguns.
May 22	Training with crossbows, muzzleloaders; shotguns TBD.
June 12	Training with shotguns.
June 26	Training with crossbows + muzzleloaders; shotguns TBD.
July 10	Training with shotguns.
July 31	Training with crossbows + muzzleloaders; shotguns TBD.
Aug. 14	Training with shotguns.
Aug. 28	Training with crossbows + muzzleloaders; shotguns TBD.
Sept. 25	To be announced.

Since participants are provided equipment and ammo, financial donations are also needed. Olzawski said donations specified for ASST can be mailed to Mid-America PVA, 6108 N.W. 63rd St., Oklahoma City, OK 73132, or call Sherry Lee with PVA at (405) 721-7168.

Olzawski is excited about the future potential for ASST, and what it means for the disabled population.

"People with physical challenges often get left behind and don't get invited," Olzawski said. "Maybe things are starting to come of age." 🌿



Volunteers with Adaptive Shooting Sports Tulsa gathered in summer 2020 for a special training session with Damon Springer, coordinator of the Shotgun Training Education Program for the Wildlife Department.

Oklahoma Wildlife Conservation Foundation Update

OWCF has announced its cornerstone conservation effort: to raise funds to create a consistent water supply for Oklahoma's world-class migratory bird wetland at Hackberry Flat Wildlife Management Area in Tillman County.

"Bringing water back to Oklahoma's world-class wetlands at Hackberry Flat is our first conservation-focused initiative and will ensure that this critical migratory wetland is available for birds and other wildlife for generations to come," Foundation Director Rick Grundman said.

The original wetland restoration project placed 15.6 miles of steel pipe to carry water to the area, but the pipeline is no longer operational and cannot deliver appropriate water to the habitat during dry times.

"The Foundation is raising donations to speed up the \$7.9 million pipe replacement project to ensure this critical habitat is protected and in place for the migratory birds and animals that use the area," he said. "We are looking for donors big and small to help us get this done quickly."

Wildlife and habitat conservation are a core focus of the Foundation's mission. Since the Wildlife Department receives no state tax appropriations and operates mainly on license fees and federal grants, OWCF was formed as a charitable organization to foster donations to bring more fish and wildlife conservation projects to Oklahoma more quickly.

In most cases, OWCF donations can be used to secure 3-to-1 matching dollars through federal funding.

Some key benefits of Hackberry Flat are:

- It is a common stopover area for endangered whooping cranes during fall migration.
- It is a critical rest stop for migrating monarch butterflies.
- More than 200 bird species have been documented using the area.
- It hosts large numbers of wading birds and waterfowl during most of the year.



BILL HORN/PROVIDED

- The 7,120-acre management area is a premier destination for birders.

Grundman said the pipeline project will be minimally invasive. Plastic pipe will be inserted into the old steel pipeline that has rusted out in many places.

"I would ask individuals, companies and foundations who care about conservation efforts — and about making a difference in Oklahoma — to strongly consider making a meaningful contribution toward this fundraising campaign. It will truly make a positive difference for the monarch butterflies, whooping cranes and migratory birds in Oklahoma and in North and Central America where they migrate to at other times of the year."



THE OKLAHOMA WILDLIFE CONSERVATION FOUNDATION (OWCF) was created to support the Oklahoma Department of Wildlife Conservation and its activities in managing the state's fish and wildlife resources and habitats. The Wildlife Department receives no general state tax appropriations; ODWC operates primarily with license sales and federal matching grants. The Foundation provides added financial support for ODWC's mission.

All donations are tax-deductible. For more information, go to www.OKwildlifefoundation.org or www.facebook.com/OKWildlifeFoundation.



The Oklahoma Wildlife Conservation Foundation is now set up as a charitable organization through AmazonSmile.

AmazonSmile is a program that donates 0.5 percent of your eligible purchases on Amazon to a charity of your choice. All you need to do is start your shopping at smile.amazon.com. The donation will be made at no extra cost to you, and you can choose from nearly a million public charitable organizations.

Richard T. Hatcher, Foundation President

Richard Hatcher is the current president of the Oklahoma Wildlife Conservation Foundation. He became an OWCF board member in 2018 after a 37-year career with the Oklahoma Department of Wildlife Conservation, ultimately as the agency's director from 2009-16.

Hatcher enjoyed his long career with ODWC and recognized the need for additional funding for the Department's many programs, including law enforcement, wildlife, fisheries, education, recruitment and wildlife diversity. "The Foundation is a way to continue to contribute to the growth of conservation and outdoor recreation in Oklahoma," he said.

He hopes to grow the resources available to ODWC for improving and expanding conservation programs. Besides the Foundation, he is also active on the board of The Urban Mission, a food resource center in Oklahoma City, and is a lifelong member of First Presbyterian Church of Oklahoma City.

Richard and Elizabeth, his wife of 45 years, reside in Edmond. He attended Trinity University in San Antonio, earning a bachelor's degree in biology, then furthered his education at Oklahoma State University, earning a master's degree in wildlife ecology.

He has enjoyed a lifetime of outdoor activities including camping, hiking, hunting and fishing. Hatcher said it's tough choosing his favorite outdoor activity: deer hunting with family, exploring state parks with his wife, wingshooting, turkey hunting, golf, and a growing interest in flyfishing rank up there as favorites. He explains the importance of the outdoors to him and his family, saying, "Enjoying a quality outdoor experience in a variety of pursuits is an integral part of our life."

The importance of supporting the OWCF, Hatcher said, is that the Foundation will help advance conservation in Oklahoma, which can improve the quality of life for all Oklahomans.

To learn more about OWCF, go to www.okwildlifefoundation.com or contact Executive Director Rick Grundman at rgrundman@okwildlifefoundation.com or (918) 323-5566. 🌿



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Outdoor Oklahoma Caps

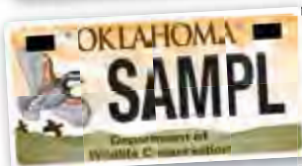
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**Prices listed on these pages do not include \$3 online ordering convenience fee.



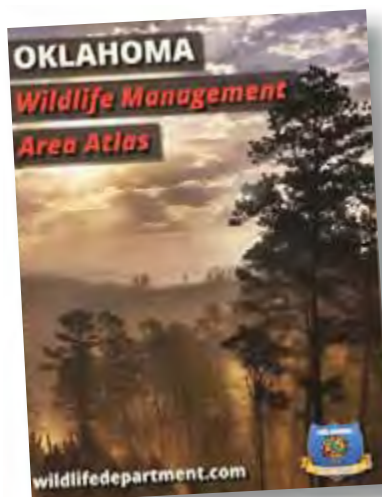
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Watchable Wildlife

THE LUNA MOTH

BY BROOKLYN BLOOMFIELD, COMMUNICATION INTERN

The luna moth, also known as the American moon moth, is unique to North America, and is often found in deciduous forests. These eye-catching creatures are characterized by their bright, pale-green body which is bordered by a rusty red or purple color along its fore and hind wings. They have large feathery antennae, and are also outfitted with four distinctive eyespots located on their broad wings. These spots help to deter would-be predators from snacking on this unique moth.

The luna moth is a member of the silkworm family, and among the largest species in North America. They can grow to have a wing span of up to 4.5 inches. That's big enough to block the light from a porch light if they were to land on it!

The luna moth starts its life journey as a very hungry caterpillar. For a month, the caterpillar is constantly eating leaves off of walnut, hickory, sweet gum and birch trees. After feasting, it builds a cocoon where it will live for about three weeks until it emerges as a fully grown luna moth.

Most adult moths exit their cocoons in April. This transformation is one of the most interesting, because once the caterpillar emerges, its mouth and digestive system have disappeared! The luna moth never eats, so it only lives for

about a week after leaving its cocoon.

Once the moth is ready to fly, it will begin searching for a mate and release a pheromone to attract other luna moths. With a short lifespan of only about one week, this is all the luna moth does before it dies. Female luna moths can lay up to 600 eggs in all, but the eggs are laid about six at a time under different leaves.

In Oklahoma, there is a possibility for two or three gen-

erations of luna moths each year because of the warmer climate. Here, they can be spotted from early April all the way into August.

Although luna moths never eat, they often are eaten by predators. Luna moths are among the favorite snacks of bats.

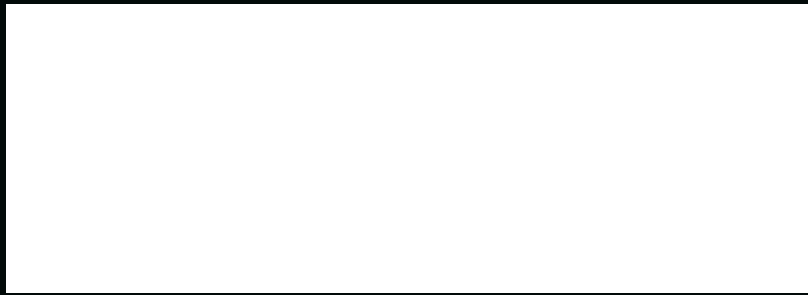
While the eyespots on its

wings help deter predators, luna moths also have other methods to protect themselves. To deter bats, they use their long wingtips, spinning them in circles. This disorients the predators by working as a type of acoustic camouflage, and the moths are often able to escape the bats' echolocation tactics.

If you are hoping to view a luna moth, try leaving a light on at night during spring and summer to attract one right to your front porch. 🌿

Most adult moths exit their cocoons in April. This transformation is one of the most interesting, because once the caterpillar emerges, its mouth and digestive system have disappeared!





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