

In This Issue: 2019-20 Big Game Report

Time to Take a Doe!

Speedgoats From the Sky

The Many Roles of Game Wardens



Panoramas

ance with the one you came with." I recall my dad saying that, usually when I wanted some gadget to add to our hunting gear or some celebrity-pitched wonder lure that would sink a boat with the fish it would catch. It was his way of saying sometimes the old familiar gear and methods were too valuable to turn away from.

With that in mind, I look at where Oklahoma sits in terms of deer management success. In 35 years, a state not mentioned in serious deer hunting circles is now a state nationally recognized for producing an exceptional number

of quality animals and greatly improved herd health. A look at the Big Game Report in this issue will show you how well our deer and deer hunters are doing. We have very high success rates. We lead the region in deer hunting opportunity. We have gone from seeing the vast majority of our bucks taken being yearlings to a very balanced-age herd that has fantastic potential for producing the large antlers most of us hunters hope to see. It was a long road to get to this point.

Decades of trying to increase antlerless harvest led to the "Hunters in the Know...

Take a Doe!" campaign. This management philosophy of greater antlerless harvest set us on the path to better-balanced sex ratios, improved rut synchronization, slowed population growth, conserved habitat from overuse, and other valuable improvements. But that was only part of the long-term plan.

Jerry Shaw

As the herd sex and age ratios became more balanced, the slogan was changed. "Hunters in the Know... Let Young Bucks Grow!" became the talk. And deer hunters voluntarily changed their hunting and began selectively harvesting older, more mature bucks — even if they didn't tag a buck each season. Just like the increase in antlerless harvest, this change in hunter attitude paid off in more mature, large-antlered deer being taken across this state.

Many think this is a time to sit back and celebrate. But

if you listen carefully, behind all the talk of trophy deer, the sound of high-fives as successful hunters stand over the biggest buck they ever killed, the click and clack of keyboards as trail camera photos are shared online and "hit list" bucks are getting named — behind all that, if you listen closely, is the sound of music.

This dance is not over.

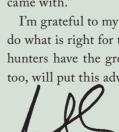
We have worked too hard to get to where we are just to turn our backs on the management that allowed us to get here. Our success is not based on a one-time commitment to antlerless harvest several years ago. Rather,

> it is an ongoing process. Continued success depends on continued effort. Deer management is no different.

I've been deeply invested in our state's deer management success, both as a hunter and as a wildlife professional. I'm very proud of what we've achieved. And deer hunters should be as well, because they have made it happen. But we still have work to do. We must continue to harvest antlerless deer at an adequate rate or all of our gains and harvests of mature bucks will be memories. We've worked too hard to let that happen!

So, during those quiet times in your stand or blind, strain your ears. Hear that band still playing and realize the dance isn't over. The deliberate, focused, and adequate antlerless harvest got us here. And just as my father would say, if you want continued success, "dance with the one you came with."

I'm grateful to my father for instilling in me the drive to do what is right for the resource and what will help fellow hunters have the greatest chances of success. I hope you, too, will put this advice to use this fall.



Jerry Shaw, Wildlife Division Program Supervisor



Inside

Off the Docton Dath

VII UIG DGALGII FAUI
Ambitious Teams Tackle ODWC's Strategic Plan 10 By Corey Jager, Strategic Plan Team Co-chairman
Harvest Numbers Show We Need to "Take a Doe" 14 By Dallas Barber, Big Game Wildlife Biologist
Big Game Report 2019-2016 By Dallas Barber, Big Game Wildlife Biologist
Panhandle Pursuits
Blind Ambition
Adventure Awaits on Oklahoma's Public Lands36 By Jena Donnell, Wildlife Diversity Information Specialist
Game Wardens: Fueled by Conservation, Ensuring Opportunity38 By Lt. Joe Alexander, Oklahoma Game Warden
Pages From the Past42
Watchable Wildlife

ON THE COVER: Doe harvest has been declining in Oklahoma, and it's again time for "Hunters in the Know ... Take a Doe!" Learn about the many benefits of filling those doe tags inside this issue. (Photo by Tracy Daniel/2020 Readers' Photo Showcase)













9

facebook.com/OkWildlifeDept



outdooroklahoma



o instagram.com/OkWildlifeDept



@OkWildlifeDept

Published by the Oklahoma Department of Wildlife Conservation

STATE OF OKLAHOMA J. Kevin Stitt. Governor

WILDLIFE CONSERVATION COMMISSION Bruce Mabrey, Okmulgee — Chairman Robert S. Hughes II, Bartlesville — Vice Chairman Leigh Gaddis, Ada - Secretary James V. Barwick, Edmond Bill Brewster, Marietta D. Chad Dillingham. Enid Rick Holder, Creta John Zelbst, Lawton

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION

J.D. Strong, Director Wade Free Assistant Director of Operations Amanda Storck. Chief Financial Officer Barry Bolton, Chief, Fisheries Division Bill Dinkines, Chief, Wildlife Division Nathan Erdman, Chief, Law Enforcement Division Nels Rodefeld, Chief, Information and **Education Division**

Nels Rodefeld, Editor Micah Holmes, Managing Editor Kelly Adams, Managing Editor Don P. Brown, Associate Editor

CONTRIBUTING STAFF

Joe Alexander, Dallas Barber, Michael Bergin, Eric Brennan, Brooklyn Bloomfield, Brandon Brown, Allen Couch, Jena Donnell, Jeff Ford, Carlos Gomez, Daniel Griffith, Darrin Hill, Corey Jager, Lance Meek, Jerry Shaw, Skylar St.Yves

Outdoor Oklahoma editorial offices: P.O. Box 53465, Oklahoma City, OK 73152

PHONE

(405) 521-3856

WEBSITE

www.wildlifedepartment.com

E-MAIL

donald.brown@odwc.ok.gov





Art direction by Stroud Design, Inc. Oklahoma City, Oklahoma

Copyright ©2020 by the Oklahoma Department of Wildlife Conservation. Reproduction in whole or in part without permission is prohibited. Outdoor Oklahoma (ISSN 0030-7106) is published bimonthly by the Oklahoma Department of Wildlife Conservation, P.O. Box 53465, Oklahoma City, OK 73152. Periodicals postage paid at Oklahoma City, OK, and additional mailing offices. Notification of address change must include both old and new addresses and ZIP codes, with six weeks' notice. POSTMASTER: Send address changes to Outdoor Oklahoma, P.O. Box 53465, Oklahoma City, OK 73152.

This program receives federal assistance from the U.S. Fish and Wildlife Service and thus prohibits discrimination on the basis of race. color, religion, national origin, disability, age and sex (gender) pursuant to Title VII of the Civil Rights Act of 1964 (as amended), Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, Section 504

of the Rehabilitation Act of 1973, and Title II of the Americans With Disabilities Act of 1990. To request an accommodation or informational material in an alternative format, contact Oklahoma Department of Wildlife Conservation, (405) 521-3851. If you believe you have been discriminated against in any program, activity or service, contact U.S. Fish and Wildlife Service, Office for Diversity and Workforce Management, 5275 Leesburg Pike, Falls Church, VA 22041.

SUBSCRIBE ONLINE

license.GoOutdoorsOklahoma.com for online credit card orders

Subscriptions are \$10 per year; \$18 for 2 years; \$25 for 3 years. Single copies \$4. Production and distribution costs not covered by subscription fees are borne by Oklahoma sportsmen and sportswomen through hunting and fishing fees.

ACCOUNT QUESTIONS

or bill-me-later orders: Call (800) 777-0019

Off the Beaten Path

Notes on Wildlife • Outdoor Tips • Readers' Letters • Environmental News Compiled by Don P. Brown



An additional 5,200 acres of prime huntable public land, the Sandhills Wildlife Management Area, is now open in southern Woods County. The Oklahoma Wildlife Conservation Commission passed rules in June setting up hunting regulations for the area that is bordered on the south by the Cimarron River.

The new WMA is about 40 miles west of Enid. It was named for its prevalent rolling sandhills, but the area has plenty of forested areas along with brushy open fields. While camping won't be permitted until next year, the new WMA is open to anyone holding a state fishing or hunting license, or a conservation passport.

Early surveys indicate good numbers of deer, bobwhites

and wild turkeys. Hunting regulations are consistent with other nearby WMAs such as Canton, Cooper and Cimarron Hills. Deer gun and holiday antlerless deer gun seasons are closed for the area. The area is closed to all but controlled hunts for the first nine days of deer gun season.

For quail and pheasant seasons, hunting hours close at 4:30 p.m. For spring turkey seasons, hunting hours close at 7 p.m. For more information on hunting at Sandhills WMA, call (580) 541-5319.





2 Off the Beaten Path

MIAMI, OK, MAN WINS

John Weedn of Miami, Okla., was the lucky winner of a guided dove hunt in Argentina in a raffle conducted this past spring in conjunction with the Wildlife Department's Controlled

Hunts Program. The trip was donated by

the Oklahoma Wildlife Conservation Foundation.

Weedn's winning ticket was one of the 1,827 tickets sold, which raised a total

www.okwildlifefoundation.org

tion across the state.

Weedn and three others of his choosing will enjoy a trip of a lifetime that includes three nights at a five-star lodge near Cordoba, Argentina, and several dove hunts. The trip okwildlifefoundation.org. •• *

will include round-trip economy airfare, gun rentals and local transportation.

The Oklahoma Wildlife Conservation Foundation was

formed in 2018 to encourage private support for the Oklahoma Department of Wildlife Conservation. The Foundation's vision is to enable all outdoor enthusiasts to active-

of \$33,500. All proceeds went to the Oklahoma Department of ly enjoy the state's wildlife and wild spaces. The Foundation Wildlife Conservation to help fund fish and wildlife conserva- is able to assist with Wildlife Department activities in a proactive way and oftentimes without institutional constraints faced by many governmental agencies. For more information or to support the Foundation and ODWC, go online to

OUTDOORS IS ALWAYS OPEN; FUN FISHING, FREE HUNTING

In these days of social distancing, facemasks and stay-home guidelines, some folks are getting some major cases of cabin fever. The Wildlife Department reminds everyone that The **Outdoors Is Always Open!**

If you haven't yet left the house with a fishing pole these past several months, it's still a great time to head out to your favorite stream or lake for some relaxing and fun times around the water. Fishing in Oklahoma can be good year-round. One option for urban dwellers are the dozens of Close To Home Fishing areas scattered across the state. These are local waters in and near larger cities that are just a short drive away. And they are stocked regularly with fish that are ready to bite! For a list of these areas, go to www.wildlifedepartment.com/fishing/wheretofish/cth.

Another great way to enjoy some outdoor recreation is the annual Oklahoma Free Hunting Days weekend, set this year on Sept. 5-6. On these two days, Oklahoma residents may participate in open hunting seasons without having a state hunting license.

These free days also provide a perfect chance for current hunters to gather up some folks who have never been hunting and give them an experience that might open a door for them, as well as help continue a time-honored American tradition.

This year, open hunting seasons during Free Hunting Days include dove, squirrel, coyote, raccoon, beaver, striped skunk, prairie dog, rail and gallinule. State Game Wardens will not check for state hunting licenses for residents on those days.

Those who will need a fishing or hunting license can get them immediately online at license.gooutdoorsoklahoma.com/ Licensing/CustomerLookup.aspx or through the Go Outdoors Oklahoma mobile app. ❖❖

NEW RULES THIS YEAR RESTRICT CERVID IMPORTS

Oklahoma hunters who plan to hunt deer and elk in other states are reminded that new rules are in effect that specify which parts of their harvested cervids they are allowed to bring back into the state.

The new rules, passed by the Oklahoma Wildlife Conservation Commission in February, are designed to reduce the risk of chronic wasting disease (CWD) entering the state. This always-fatal disease that affects deer, elk and other cervids has been found in every state surrounding Oklahoma, but has yet to be detected in any wild Oklahoma cervid.

The following restrictions are effective for all 2020-21 hunting seasons.

No person shall import, transport, or possess any cervid carcass or part of a cervid carcass from outside the boundaries of Oklahoma. The following items are the only exceptions:

- · Antlers or antlers attached to clean skull plate or cleaned skulls (all tissue removed);
- Animal quarters containing no spinal materials or meat with all parts of the spinal column removed;
- · Cleaned teeth;
- Finished taxidermy products;
- · Hides or tanned products.

For more information, including carcass disposal do's and don'ts, go to www.wildlifedepartment.com/hunting/ species/deer/cwd. *•×

FREE RESOURCES TARGET NEW, EXPERIENCED HUNTERS

Over the years, fewer people have been participating in traditional outdoor activities, making it tougher for state and federal agencies to achieve conservation missions. Thankfully, hunters, anglers and other outdoor enthusiasts have been major supporters of our work. Now, we are looking to maintain current recreation participation while also attracting new audiences, which leads to discussions about R3 efforts.

R3 stands for recruitment, retention, and reactivation. R3 activities seek to create new participants or increase participation rates of current or lapsed outdoor

recreationists. Outdoor recreation can include hunting, fishing, wildlife observation, photography, education and interpretation, hiking, camping, boating, and many others.

Recruitment activities generate awareness and interest in an activity, as well as providing opportunities for people to try an activity. **Retention** activities provide the support necessary for novice recreationists to build their skills until they are able to participate independently. **Reactivation** activities help lapsed recreationists become active participants.

We've been doing these activities for years and now the Outdoor Reaction Adoption Model has given us and our partners a shared vocabulary. We use this model, and the concepts of R3, to identify how we can support outdoor recreation opportunities, access and education.

The Wildlife Department is strengthening its engagement locally in this broad national effort. We are looking for new ways to expand access to hunting and fishing and to increase our support for hunting and shooting. Whether it's through mentored hunts, expanding access, monitoring fish and game species, or grants administered for hunter education courses,



we are engaged in R3 activities through our work on public lands and with our partners.

Here are some resources for hunters of all ages:

HUNTERS CONNECT:

More than 600,000 new hunters go through hunter education courses annually in the U.S. The International Hunter Education Association (IHEA-USA) is continually striving to communicate with those hunters. Hunters Connect, part of HunterEd.com, an R3 outreach program, uses digital media tools to lower the hurdles facing new hunters. Hunters Connect's digital video library will provide the "how-to," "where-to," "whento," "what-to" for new hunters.

These topics will cover what new hunters want to know yet have struggled to find out. From purchasing and applying for licenses, selecting firearms and bows, choosing gear, reading maps, tactics for hunting different species, food care and prep, and everything in between, Hunters Connect will speak to the Millennial and Gen Z generations and to adults just entering hunting.

The Hunters Connect digital library is free, thanks to generous industry grants.

NRA EXPERIENCED HUNTER EDUCATION COURSE:

This free course in an online review of everything an experienced hunter should know, including a review of firearm safety and safe hunting practices. Though not a substitute for state-mandated hunter safety requirements, it provides a solid foundation of the fundamentals.

This comprehensive hunting refresher course will help hunters become safer and more confident before heading into the field. For more information, visit https://nra.yourlearningportal.com/Courses/NRA-Experienced-Hunter-Education and get ready for a safe and successful season.

ANNUAL WILD I SECOMES VICTIM OF PANDEMIC

For 14 years, tens of thousands of people have looked forward to attending Wildlife Expo, the annual weekend event produced by the Wildlife Department that celebrates everything outdoors. Unfortunately, the 2020 edition of Wildlife Expo will not happen due to effects of the COVID-19 pandemic here in America and around the world.

Department officials concluded in May that trying to hold the Expo as usual this year would not be possible because of several reasons. Included were health concerns associated with large groups and possible transmission of the coronavirus. Also, many suppliers traditionally supporting the event would not be able to meet product and delivery goals because of shutdowns and restrictions. And since one large element of the event is to welcome school groups, it was unknown whether schools would be in session or whether field trips would be possible.

Officials said the decision to cancel was a particularly hard one to make. But they said be sure to mark your calendars for next year's Wildlife Expo, scheduled for Sept. 25-26, 2021.

4 Off the Beaten Path

NATIONAL DAY HONORS CONSERVATION **HERITAGE**

National Hunting and Fishing Day celebrates the time-honored traditions of hunting, angling, and the immense conservation and economic contributions made over time by sportsmen and sportswomen. As the original conservationists, sportsmen and sportswomen have been the greatest funders and supporters of science-based wildlife management through the American System of Conservation Funding, a unique "user pays, public bene-

fits" structure that serves as the main funding mechanism for state fish and wildlife agencies like the Oklahoma Department of Wildlife Conservation.



RISH

life resources. Through the purchase of license sales, duck stamps, and excises taxes on outdoor gear, firearms, ammunition, archery equipment, fishing tackle, motorboat fuel, and other hunting and angling-related items, money spent by sportsmen and sportswomen is deposited into a dedicated fund to only be used for conservation, creating the American System of Conservation Funding.

In the United States, more than 53 million sportsmen and sports-

women work tirelessly to protect and promote our sporting heritage and natural resources. In 1972, the U.S. Congress and President Richard Nixon established National Hunting Such agencies are the primary managers of our fish and wild- and Fishing Day, recognizing generations of sportsmen and

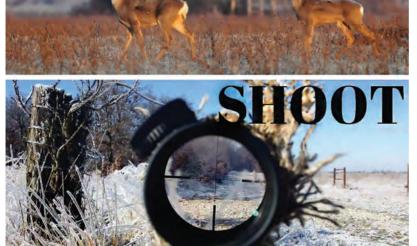
> sportswomen for their contributions to the conservation of our nation's rich sporting heritage and natural resources.

> Since its inception, governors from all 50 states and more than 600 mayors have proclaimed state and local versions of National Hunting and Fishing Day. In doing so, they have promoted over 3,000 hunting and fishing related events, hosting more than 4 million participants.

> National Hunting and Fishing Day is celebrated on the fourth Saturday of September. By encouraging participation and increasing public awareness of the connection between hunting, angling, and conservation, the goal is to recruit new hunters and anglers, resulting in continued funding for science-based fish and wildlife management.

> National Hunting and Fishing Day remains the most prominent occasion for promoting America's hunting and angling traditions, and the economic and conservation benefits provided by sportsmen and sportswomen. National Hunting and Fishing Day proclamations, resolutions, and celebrations increase awareness and participation in these activities, which helps safeguard funding for conservation throughout the nation. ***

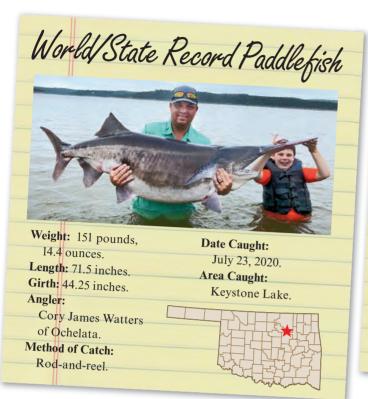
> > (Congressional Sportsmen's Foundation)

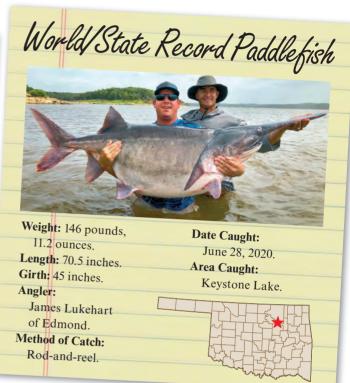


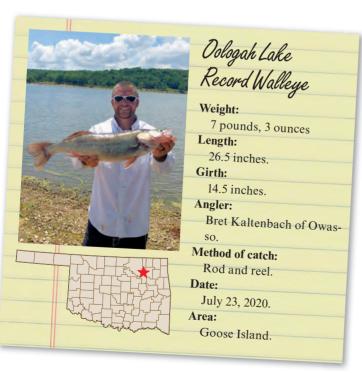
If you hunt, shoot or fish, thank you! Help spread the word about National Hunting and Fishing Day by using #HuntShootFish and pledge to take someone hunting, fishing or shooting this year. To take the pledge and maybe win a prize, go to www.nhfday.org/pledge.

KEYSTONE YIELDS TWO WORLD PADDLEFISH RECORDS!

Two back-to-back world/state records and new state- or lake-record fish have been added to the Wildlife Department's official database in recent weeks. Here is a snapshot of the big ones that didn't get away!







What's the biggest fish you've ever caught? A 7-pound largemouth, a 2-pound crappie or a 45-pound blue catfish? While your fish might not be a new state record, it possibly could be the biggest fish ever caught from your favorite lake. Thanks to a network of record-keepers at lakes across the state, your next trophy could qualify as a lake record.

The Lake Record Fish Program was established as a way to serve anglers and recognize big fish and the lakes they come from. To find out more, go to www.wildlifedepartment.com/fishing/state-and-lake-records. ••×



6 Off the Beaten Path



Game Warden's Journal

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

Oklahoma Game Wardens Jason Badley, based in Harper dens observed nothing but a dip net and battery in the boat. County, and Rusty Menefee, based in Woodward County, assisted with the successful youth shooting camp held by Butch's Guns in Woodward. About 160 youngsters get instruction at four camps, with about 40 students in each camp.

While on patrol in western Choctaw County, Game Warden Jim Gillham, based in Atoka County, observed a boat trailer and an ATV on the bank of Muddy Boggy River near the Buckhorn community. Gillham contacted Game Warden Andrew Potter, based in Choctaw County, who went to the area. The boat returned with four people aboard. Game War-

Interviews led to an illegal electrofishing device.

The use and/or possession of an electrofishing device is strictly prohibited on or near Oklahoma waters. Citations were issued, and the boat and fishing equipment were taken as evidence. Charges were pending in Choctaw County District Court.

(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.

Outdoor Galendar

FOR NEW UPDATES TO THE OUTDOOR CALENDAR. PLEASE VISIT THE DEPARTMENT'S WEBSITE: WWW.WILDLIFEDEPARTMENT.COM/CALENDAR

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

SEPTEMBER 2020

- Hunter Education Classes in Afton, Fort Cobb, Fort Gibson, McAlester; register at license.GoOutdoorsOklahoma.com/events.aspx.
- Oklahoma Free Hunting Days.
- "Outdoor Oklahoma" TV, OETA World.
- Oklahoma Wildlife Conservation Commission meeting, 9 a.m., 1801 N. Lincoln Blvd., Oklahoma City.
- 12 Hunter Education Classes in Antlers, Guymon, Jay, Skiatook, Wagoner; register at license.GoOutdoorsOklahoma.com/events.aspx.
 - Fly Fishing Class in Oklahoma City; register at license. GoOutdoorsOklahoma.com/events.aspx.
- "Outdoor Oklahoma" TV, Fish Hatcheries, 8 a.m., OETA. 13
- Okla. Striped Bass Assn. meeting, 7 p.m., Zebco, Tulsa, (918) 639-8114
- 18 Hunter Education Class in Lawton; register at license. GoOutdoorsOklahoma.com/events.aspx.
- Hunter Education Classes in Enid, Granite, Okmulgee, Tahleguah, Woodward; register at license.GoOutdoorsOklahoma.com/ events.aspx.
- "Outdoor Oklahoma" TV, 8 a.m., OETA.
- "Outdoor Oklahoma" TV, 8 a.m., OETA.
- Friends of NRA events set in El Reno, Sept. 10; Shawnee, Sept. 19; Stillwater, Sept. 24; Enid, Sept. 26. Info: www.FriendsOfNRA.org.
- National Wild Turkey Federation. Info: www.nwtf.org/events.
- Ducks Unlimited. Info: www.ducks.org.

OCTOBER 2020

- Hunter Education Classes in Chickasha, Choctaw, Colony, Sallisaw, Stillwater, Wayne; register at license. GoOutdoorsOklahoma.com/events.aspx.
 - Oklahoma City free fishing day, no city permit required.
 - "Outdoor Oklahoma" TV, TBD, 8 a.m., OETA.
- Oklahoma Wildlife Conservation Commission meeting, 9 a.m., 1801 N. Lincoln Blvd., Oklahoma City.
- Adult Fishing Class in Oklahoma City; register at license. GoOutdoorsOklahoma.com/events.aspx.
 - Hunter Education Classes in Edmond, Ponca City, Shawnee; register at license.GoOutdoorsOklahoma.com/events.aspx.
- "Outdoor Oklahoma" TV, 8 a.m., OETA. 11
- "Outdoor Oklahoma" TV, 8 a.m., OETA. 18
- Okla. Striped Bass Assn. meeting, 7 p.m., Zebco, Tulsa, (918) 639-8114.
- "Outdoor Oklahoma" TV, 8 a.m., OETA.
- Ducks Unlimited events set in Enid, Oct. 1; Poteau, Oct. 1; Tulsa, Oct. 29. Info: www.ducks.org/Oklahoma/events.
- Friends of NRA events set in Tahlequah, Oct. 1; Dewey, Oct. 3; Woodward, Oct. 10; Oklahoma City, Oct. 28; Wilburton, Oct. 31. Info: www.FriendsOfNRA.org.
- National Wild Turkey Federation. Info: www.nwtf.org/events.

** FOR HUNTING SEASON DATES, GO TO www.wildlifedepartment.com/hunting/seasons **

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 Wildlife Department,

We had our annual noncommercial breeder inspection this June. Game Warden Cody Youngblood, new to Cherokee County, came out on his first day back from paternity leave to help get us squared away early in the month! The naturalist at another park left his position in a critical time of year, so I alerted their manager about the inspection and licenses she



Cody Youngblood

needed to work on. They also had large venomous snakes and needed a solution for them! Youngblood helped put us in contact with Game Warden James Williams, who was extremely helpful.

These wardens go above and beyond to help us at Oklahoma State Parks. Loran Mayes, Robbers Cave manager, said it best yesterday when she was talking to me about how these community relationships are so important to have before a crisis or even a small matter to get things resolved quickly and correctly.

I also regularly contact biologists Mark Howery, Matt Fullerton, and Curtis Tackett with questions. They are a vital resource to us with their knowledge on the natural world as well as correct protocols and procedures. We are often trying to help people ID snakes instead of killing anything that slithers. They go above the call of duty to help my volunteers and staff.

We hope that together we can help each other fulfill our agencies' missions. We will miss seeing everyone at the Wildlife Expo, but know that we consider so many members of your ODWC staff to be vital team members to us at Oklahoma State Parks. Not only are they great at their jobs quantitatively, but they are quality people who are always helpful and make sure to tell us to let them know anytime we need help.

Angelina Stancampiano, Three Forks Nature Center

Dear Wildlife Department,

I wanted to let you know that we finally made it out to Heyburn Wildlife Management Area and camped one night. Area Biologist Matt Mattoida was so helpful. He brought us some firewood and explained how to get to a waterfall, which was probably the highlight of the trip. Well, that and hearing a barred owl! I wish we were still there. Thank you for your help!

Tricia Hines, GIS Coordinator/Policy Analyst, Oklahoma **House of Representatives**

Dear Director J.D. Strong,

I want to express my sincere appreciation to Mr. James Williams, Game Warden for Latimer County, for his invaluable assistant to Ms. Loran Mayes, park manager of Robbers Cave State Park.

For a number of years, this state park's nature center has displayed venomous snakes as one of its interpretive exhibits. With a recent change in the nature center's staffing, Ms. Mayes made the



James Williams

decision that this was the appropriate time to remove these snakes from the facility. There were five venomous snakes on display; the eastern diamondback rattlesnake and water moccasin were quite large.

Upon being contacted by Ms. Mayes, Williams not only provided approval for the snakes to be released in a remote location of the Robbers Cave Wildlife Management Area, but took an active leadership role in removing the snakes from the nature center and in releasing them into the wild. The state park didn't have anyone who was qualified, or comfortable, in handling these snakes.

Thank you so much for conveying my and Ms. Mayes' appreciation to James Williams for going above and beyond the call in helping us.

Kris Marek, Director, Oklahoma State Parks

Dear Wildlife Department,

Huge "thank you" to Oklahoma Game Warden Marvin Stanley, based in Cherokee County, for making sure phones, IDs, cash and cards were returned when our lost dry box was located after the canoe flipped. Stanley was able to contact Northwest Arkansas authorities, who looked me up to let me know our lost property had been found. Stanley met us so Marvin Stanley



we didn't have to drive the whole way. On top of that, we just assumed he found the dry box on his rounds. No, he confiscated it from two guys who were divvying it up! Thank you, Officer Stanley; the world needs more of you!

P.S. Please always wear your life vests. Water safety is no joke. Dianna K. Winters-Lewis, via Facebook

8 Off the Beaten Path



OKLAHOMA

DEPARTMENT OF WILDLIFE CONSERVATION



BIG GAME



	DEER & ELK	BEAR'	ANTELOPE
ARCHERY	Oct. 1 - Jan. 15	Oct. 1 - 18	Oct. 1 - 14
YOUTH GUN	Oct. 16 - 18	NO SEASON	NO SEASON
MUZZLELOADER	Oct. 24 - Nov. 1	Oct. 24 - Nov. 1	NO SEASON
GUN	Nov. 21 - Dec. 6	NO SEASON	DRAWING ONLY
HOLIDAY ANTLERLESS	Dec. 18 - 31	NO SEASON	NO SEASON

BIRDS



	PANHANDLE	ZONE 2		
DUCKS (REGULAR SEASON)	Oct. 10 - Jan. 6	Nov. 14 - 29 & Dec. 5 - Jan. 31	Nov. 14 - 29 & Dec. 5 - Jan. 31	
DUCKS (YOUTH, VETERAN, ACTIVE MILITARY)	Oct. 3 & Feb. 6	Nov. 7 & Feb. 6	Nov. 7 & Feb. 6	

	FALL ARCHERY	YOUTH SPRING	SPRING
TURKEY	Oct. 1 - Jan. 15	April 3 - 4	April 6 - May 6
	FALL GUN	YOUTH SPRING (SE)	SPRING (SE)
	Oct. 31 - Nov. 20	April 17 - 18	April 19 - May 6

DOVE Sep. 1 - Oct. 31 & Dec. 1 - 29

QUAIL Nov. 14 - Feb. 15

PHEASANT Dec. 1 - Jan. 31

SMALL GAME

SQUIRREL May 15 - Jan. 31

RABBIT Oct. 1 - March 15

FURBEARER Dec. 1 - Feb. 28

🛾 🔘 🕒 💓 wildlifedepartment.com

before burling. The Special Southwest Zone for elk bis season dates that vary from the regular statewide season dates been above. Consult the most current Oldahoma Hunting Regulations Guidebook for the special Southwest Zone dates.

Oklahoms Satisfies Biroughyour book listeny. This program reviews Federal associative from the U.S. Fish and Wildide Service, and thus probabls documentation on the basis of race, color, religious national origin, disability, age, and sex (general) passaud to like Vill of the Cost lights Act of 1964 (as amended), fille Krof the Education Act of 1974, and file in the Americans with Documentation Act of 1976, Section 506 of the Behabilitation Act of 1974, and file in the Americans with

Ambitious Teams Tackle ODWC's Strategic Plan

First-year Initiatives Set Course to Future Goals

By Corey Jager, Strategic Plan Team Co-chairman

In 2018, the Wildlife Department launched a strategic planning initiative to define what goals should be in our sights for the next five years. This plan was built on a solid foundation with a robust process engaging Oklahoma Wildlife Conservation Commissioners, Department leadership, all agency employees, and front-line stakeholders.

The focus was to ensure the strategic plan becomes the blueprint for how the agency will work, which ultimately provides the greatest benefit to Oklahoma's natural resources and outdoor enthusiasts.

Planning involved six Department employee meetings held across the state, three comprehensive employee surveys, a survey of 38 Department stakeholder groups, and a roundtable meeting with stakeholders.



To focus on the most critical aspects of the Wildlife Department's duties and vision, planners updated the Department's mission statement:

We 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.

The strategic planning process resulted in four overarching goals:

GOAL 1

ENHANCE OKLAHOMA'S FISH AND WILDLIFE RESOURCES FOR FUTURE GENERATIONS:

Maintain and enhance fish and wildlife resources; embrace new and existing partnerships aligned with the Department's mission.

GOAL 2:

STRENGTHEN A DEDICATED, TALENT-RICH FISH AND WILDLIFE AGENCY:

Provide employees with appropriate equipment, technology and training; recruit, retain and reward a diverse and fully engaged workforce.

GOAL 3:

MANAGE MONEY AND SERVICES TO THE FULLEST POTENTIAL:

Ensure financial responsibility and sustainability.

GOAL 4:

GROW AN ACTIVE, PASSIONATE AND KNOWLEDGEABLE OUTDOOR COMMUNITY:

Recruit, retain, and reactivate (known as R3) hunters, anglers, sport shooters, boaters and nontraditional recreationists; improve public recognition and support

for agency employees as fish and wildlife experts; and increase access to aquatic- and wildlife-related recreational opportunities.

After determining those four main goals, planners mapped out 17 objectives and 85 strategies to implement over the next five years to reach those goals.

The first year of strategic plan implementation was ambitious. Planners chose to focus initially on 14 of the most critical strategies. Each strategy was assigned to a team leader, who then developed a team of employees to develop action plans. Broken down by overall goals, here are some highlights of the Wildlife Department's accomplishments during the first year:

GOAL 1: Enhance Oklahoma's Fish and Wildlife Resources for Future Generations.

- Flowing Into the Future: This team was tasked with encouraging enforcement of statewide water-quality standards and promoting the implementation of instream flow management according to the best scientific data. Staff was surveyed to identify the most pressing water-quality issues in Oklahoma, and the team developed an instream flow communication plan to help build awareness and understanding of the topic.
- Stewarding Our Lands: This team developed a Management Plan template for wildlife management areas that identified goals, objectives, management needs, strategies, and accomplishments. Written plans using this template have been completed for all WMAs. The team has shifted to identifying and building GIS (geographic information system) components for each WMA plan. Once data entry is completed for GIS features, a dashboard component will be developed as a user-friendly platform for viewing data by WMA, region, or even statewide.

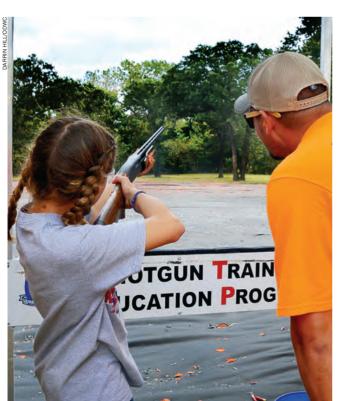






GOAL 2: Strengthen a Dedicated, Talent- Rich Fish and Wildlife Agency.

- Rewarding Excellence: This team was tasked with evaluating compensation packages and employee duties. The team developed six recommendations to update pay policies and review employee pay grades and pay scales.
- Listening for Change: This team focused on encouraging more and better communication within and between divisions and settled on an option to replace the central information storage and sharing platform (aka the Intranet). The team successfully developed and launched a new hub for information sharing called the Terminal of All Data (TOAD), a name selected through an all-employee naming contest. TOAD will include forms, documents and links to applications often used by employees.
- Removing Paper Obstacles: This team sought to streamline paperwork so employees can spend more time working on what matters most. The team identified all of the paper processes in the agency and transferred three internal forms to electronic processes. The team continues to explore paperless solutions for other tasks, including timesheets and electronic signatures.
- Attracting Top Talent: This team focused on reviewing
 job descriptions and requirements to ensure the agency
 gets the best new employees. The team reviewed, updated, and standardized all job descriptions, as well as wrote
 an addendum to job announcements that offers more
 details about the Department, its mission and goals.





- Building a Team Culture: This team focused on holding employees accountable to ODWC's values by incorporating these values into performance evaluations. The team built the agency's values into the evaluation process and launched a revised form for the 2020 cycle of employee evaluations.
- Leading With Purpose: This team focused on how to establish agency leaders that are equipped and expected to lead by example. The team developed a basic framework for a multi-level approach to leadership development and held training for upper management to understand how to manage change during a strategic planning process.

GOAL 3: Manage Money and Services to Our Fullest Potential.

Aiming for the Target: This team was tasked with identifying agency program goals and how to evaluate them for performance. The team developed a two-step program evaluation tool: the first step focused on having program leads identify goals and metrics, and the second step focused on evaluation of stated goals and metrics.



- Spending Wisely: This team focused on aligning budgets with strategic priorities on an annual basis. The team is reviewing expenditures to ensure they meet the Department's mission, and is working on moving the budget process to a new electronic, more-accessible system.
- Finding New Resources: This team sought solutions to broaden financial support from partners, non-governmental organizations, and new sources aligned with ODWC's mission. The team developed an evaluation tool and ranked new revenue ideas suggested by employees. Using the rankings, the team recommended the top projects for the agency to pursue to enhance revenue.

GOAL 4: Grow an Active, Passionate and Knowledgeable Outdoor Community.

- Boosting Communication Impact: This team set its sights on tracking and reporting on targeted and effective communications. The team identified the need for all communication efforts to develop goals, objectives and metrics for tracking. The team also focused on increasing ODWC's presence at outdoor-related events.
- Laying Out the Welcome Mat: This team has identified ways to make ODWC's properties more user-friendly and identified priorities for new land purchases. The

team developed standards for infrastructure improvements and revised the land acquisition recommendation form to provide a better framework for proposed land acquisitions.

• Seeking the Next Generation: This team worked to ensure that the agency continues as a national leader in recruiting, retaining and reactivating hunters and anglers, known as R3. The team developed and put into action an extensive agency-wide R3 plan focusing on opportunities to supercharge existing Department programs. The agency now has both a fishing and hunting R3 coordinator on staff. The team also developed a Request for Proposal to assist the agency in unifying and building on the agency's brand awareness and public recognition.

• •

As with any effort to improve, the Wildlife Department will never be done. Just as hitting the bull's-eye takes continual planning and practice, perfecting our work at ODWC also requires constant effort.

Having a strategic plan provides the structure needed to adapt to changing conditions without falling short of the mark. And we know that executing a plan is just as important as creating one.

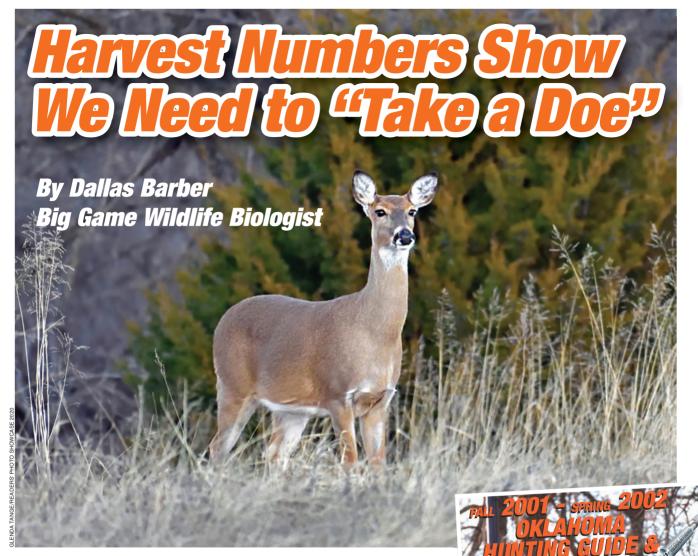
The accomplishments above represent a sampling of the strides made during ODWC's first year of imple-

menting strategic plan initiatives. They did not happen without an agency-wide commitment to planning, prioritizing, and executing. We sought to tackle some of the most important, yet challenging, topics for our agency in this first year. We learned that in many cases, these initiatives are long-term and require ongoing efforts.

We are optimistic about Oklahoma's future and the rising stock of what is quickly becoming one of the nation's best outdoor destinations. As we adjust to a more purposeful and precise way of doing business over the next few years, we will continue to hit more targets, thus building Oklahoma into a Top-10 destination for all things outdoors.







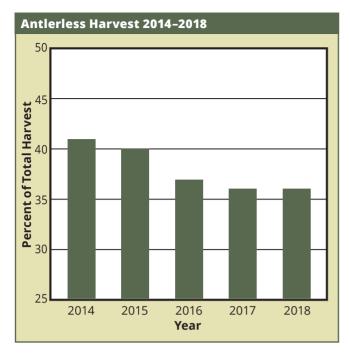
EER HUNTERS have probably noticed that new antlerless deer harvest regulations were recently added, which liberalizes bag limits and season dates for antlerless deer starting with the 2020-21 seasons. This was done due to a decline in overall antlerless deer harvest statewide, leading to skewed buck-to-doe ratios.

The biggest changes are in antlerless deer hunting zones that are showing high antlerless populations due to lack of harvest, abundance of agricultural crops, limited hunting access, high reproductive success, more than favorable habitat conditions, or other factors that have resulted in increasing doe numbers.

Adequate antlerless harvest benefits both the deer herd and also deer hunters. As a deer hunter, you are truly a boots-on-the-ground wildlife manager, regardless of whether you are hunting private or public land. Your choice to harvest — or more importantly pass — on an animal has an impact at a local population level. When you achieve a more even buck-to-doe ratio, there are several benefits that can occur leading to healthier deer, thus better antler development, and stable population levels.

One benefit is the additional nutrients available for deer. A section of habitat can only support a certain number of deer, known in biological terms as its carrying capacity. As more and

more deer begin to use the habitat, the available food is spread thinner and thinner until it reaches a level where animal health starts to decline. The number of animals that can be supported is the carrying capacity of that property. By reducing animal numbers, the share of available nutrients becomes more abundant to those animals remaining on the landscape. As many already know, nutrition is key in antler development. So, in a very real way, working toward a balanced sex ratio will help with the production of larger-racked



bucks as well as larger-bodied animals, resulting in more meat in the freezer.

Hopefully we all have witnessed a mature buck chasing does during the rut. During that time, the buck is so focused on breeding that it will forgo rest, sleep, and even food for as long as possible. This devotion to breeding can be detrimental when a large population of does is present, and the buck-to-doe ratio is weighted heavily toward does. Because does are only interested in breeding for a short 24 hours, and that time is fairly synchronized among the does in an area, bucks cannot breed all the does during that receptive period known as the "standing estrus." The does that do not breed during that first estrous cycle will re-enter breeding condition in roughly 28 days. This is called the "secondary rut." Any does that remain unbred during the second breeding cycle may enter a third estrous period, or even more. This explains why bucks are sometimes seen chasing does into December and even January in some locations.

This cycling effect causes bucks to expend a tremendous amount of energy traveling great distances to rut for two to three months instead of two to three weeks. Just as in the first rut period, they will forgo eating and rest, causing them to enter the harshness of winter in

poor body condition. As winter is lacking in many food resources, this hinders their ability to reach maximum potential antler development later in spring and summer. It also leads to the harvest of many bucks that are underweight and that won't provide nearly the amount or quality of venison that otherwise would occur.

Second and third rut periods lead to fawns that are born later in spring than those that were conceived during the first rut period. This can be detrimental to the health of the fawns. The later into summer they are born, the more difficult it is for their mothers to obtain enough nutrition to produce milk in adequate volume and with enough nutrients. Once weaned, the later-born fawns are racing the clock to obtain nutrition from dry, dessicated summer forage until fall provides another flush of nutrients with cool-season forages and acorns where available. For many late-born fawns, the time they have simply isn't enough, and they enter their first winter undersized and undernourished. Studies have shown that a buck fawn born just a month later than its same year classmates will take three years to reach similar antler sizes of those born earlier in spring.

Preventing these second- and third-rut periods by harvesting an adequate number of does helps grow healthier fawns. And healthier fawns grow into healthier adults!

Additionally, when a good portion of the doe population has fawns all at the same time during the spring, fawn survival goes up. Predators simply cannot keep up with the number of fawns on the landscape.

Simply put, reducing the buck-to-doe ratio improves antler quality potential on that property by increasing the nutritional availability on the land, reducing the rut to a short but intense period, and reducing the frequency of late-born fawns. It also provides more pounds of deer meat from each animal harvested.

Deer management and antlerless harvest go hand in hand. As a hunter deer manager, I challenge you to know and practice both of the Wildlife Department's recent educational campaigns and "be in the know."

- Hunters in the Know ... Let Young Bucks Grow!
- Hunters in the Know ... Take a Doe! (Or even two or three does!)

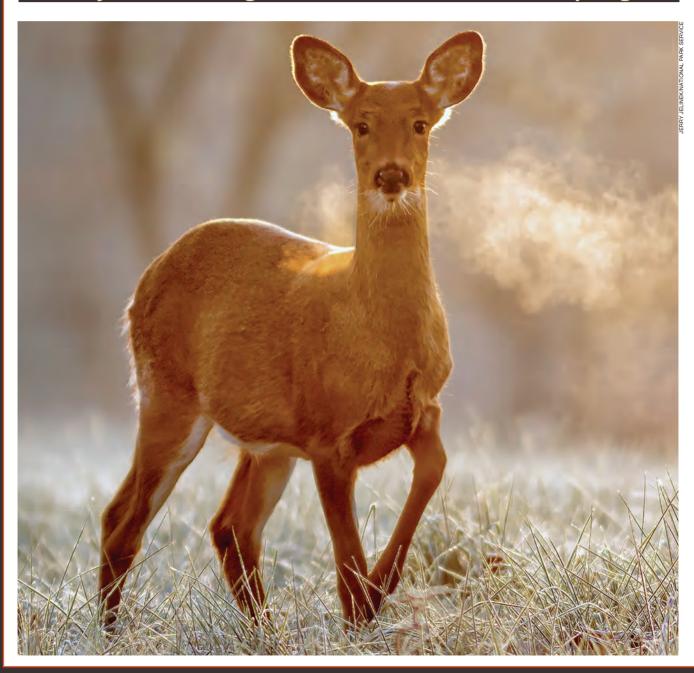
The harvest totals in recent years tell us that hunters must continue to focus on reducing the number of young bucks taken, and increasing the number of does harvested. It's easy to do your part: Harvesting does will help prevent

overpopulation in localized areas; improve an area's buck-to-doe ratios resulting in a healthier herd; reduce competition for forage and nutrients; and lessen the impact on growing crops. These benefits, in turn, can help grow larger racks larger-bodied deer, which puts more meat on the table.



BIGGAME 2019 REPORT 2020

Archery Deer Hunting Records Set; Doe Harvest Drops Again



With the 2019-20 big game seasons in the books, it is clear that hunters in Oklahoma are continuing to enjoy a healthy resource in the state's deer herd. Deer harvest totaled 106,337, a small decrease from the 2018-19 season. Figure 1 depicts a deer harvest breakdown from 2004 to the most recent season.

This was the fourth year in a row that harvest failed to reach doe harvest goals desired by Oklahoma Department of Wildlife Conservation biologists. Doe harvest made up 37 percent of the season total, which is below the target range of 40 percent to 45 percent.

Modern firearms hunting continued to be the most popular method of take, and thus makes up the majority of the total harvest at 55.5 percent. A total of 59,045 deer were harvested during the various gun seasons (youth, regular gun, and holiday antlerless).

Muzzleloader hunting continued to show declining

hunter participation. However, for those hunters using this method, harvest and success rates were up compared to the 2018-19 season. Muzzleloader hunters harvested 16,544 deer. Figure 2 shows success rates among the various hunting methods.

However, archery hunting continued its long-term growth in popularity for deer hunting with a new archery harvest record of 30,748 deer harvested.

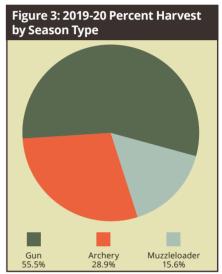
Individual seasons and their respective harvests are represented in Figure 3.

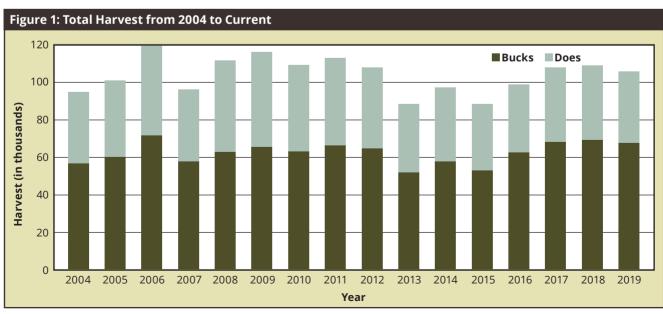
Oklahoma boasts some of the most diverse landscapes in the country. Along with that diversity comes varying quali-

By Dallas Barber, Big Game Wildlife Biologist ty and amounts of deer habitat. While some counties have wildlife management areas (WMAs), to help even the playing field with those counties that do not, Table 1 reflects deer harvest totals by county with data from the WMAs removed. As always, larger counties top the list. Osage County totaled 4,434 deer harvested, while Creek County landed in second place with 3,024. The third highest total came from Pittsburg



Figure 2: Success Rates by Method 2004-Current Muzzleloade Archery Percentage Success Rate





SEPTEMBER/OCTOBER 2020 17

Table 1: 2020 De	er Harvest by County, Season, and Sex (Does not include WMA data)							
	Archery		Gı	un	Muzzleloader		Cuand Total	
County	Female	Male	Female	Male	Female	Male	Grand Total	
Adair	174	200	344	493	92	249	1,552	
Alfalfa	94	165	270	415	32	73	1,049	
Atoka Beaver	277 25	355 50	364 100	624 277	118 7	410 32	2,148 491	
Beckham	112	186	370	667	45	68	1,448	
Blaine	50	89	149	339	19	46	692	
Bryan	204	282	196	448	48	129	1,307	
Caddo	132	209	339	655	42	103	1,480	
Canadian	104 99	144 167	174 184	306 385	30 30	54 126	812 991	
Carter Cherokee	319	377	404	612	110	313	2,135	
Choctaw	196	238	274	483	88	233	1,512	
Cimarron	5	19	2	117	2	8	153	
Cleveland	217	305	193	312	51	124	1,202	
Coal	133	179	243	384	52	165	1,156	
Comanche Cotton	84 54	155 86	104 127	245 238	31 20	61 35	680 560	
Craig	169	271	347	649	50	159	1,645	
Creek	403	582	659	1014	118	262	3,038	
Custer	45	110	182	432	23	37	829	
Delaware	440	453	417	679	114	214	2,317	
Dewey	38	115	156	552 541	37	53	951	
Ellis Garfield	50 69	134 84	177 210	541 353	18 26	64 63	984 805	
Garvin	98	181	186	433	31	117	1,046	
Grady	131	231	313	547	51	107	1,380	
Grant	111	158	356	542	67	110	1,344	
Greer	43	79	144	346	28	27	667	
Harmon	72 16	91 62	170 70	294 259	30 14	44 16	701 437	
Harper Haskell	150	181	236	340	68	223	1,198	
Hughes	156	247	223	519	54	224	1,423	
Jackson	77	119	170	323	21	55	765	
Jefferson	73	149	185	323	21	67	818	
Johnston	94	131	198	323	29	86	861	
Kay Kingfisher	97 102	143 111	256 238	417 327	32 26	77 69	1,022 873	
Kiowa	39	86	139	342	25	36	667	
Latimer	110	190	110	246	68	213	937	
LeFlore	192	296	291	501	162	407	1,849	
Lincoln	307	398	519	887	121	162	2,394	
Logan	258	330	425	639	76	120	1,848	
Love Major	64 87	98 127	167 282	192 552	13 38	48 74	582 1,160	
Marshall	41	66	67	115	15	33	337	
Mayes	240	296	282	442	81	197	1,538	
McClain	103	154	181	269	33	75	815	
McCurtain	409	386	560	854	241	502	2,952	
McIntosh	85 49	167	150	307 195	38 20	123 63	870	
Murray Muskogee	175	107 194	74 196	363	65	190	508 1,183	
Noble	113	131	294	409	43	75	1,065	
Nowata	149	201	333	583	37	88	1,391	
Okfuskee	128	214	232	481	65	159	1,279	
Oklahoma	333	473	232	372	31	77	1,518	
Okmulgee	142 463	226 681	214 1026	338 1836	48 153	181 295	1,149 4,454	
Osage Ottawa	205	282	334	480	54	124	1,479	
Pawnee	162	227	334	562	71	124	1,480	
Payne	235	349	462	696	82	156	1,980	
Pittsburg	413	549	347	819	158	622	2,908	
Pontotoc	144	293	299	432	55	173	1,396	
Pottawatomie Pushmataha	303 325	402 381	410 399	685 601	90 164	227 450	2,117 2,320	
Roger Mills	107	185	529	825	51	97	1,794	
Rogers	368	494	377	645	65	153	2,102	
Seminole	193	235	261	465	68	176	1,398	
Sequoyah	220	276	328	467	124	383	1,798	
Stephens	88 5	178 22	186 15	439 90	27 1	115 17	1,033 150	
Texas Tillman	73	88	172	312	19	38	702	
Tulsa	172	236	122	208	32	49	819	
Wagoner	196	230	208	293	50	126	1,103	
Washington	133	211	241	467	27	62	1,141	
Washita	17	50	122	288	15	37	529	
Woodward	63	190	230	510	28	78	1,099	
Woodward County Totals	93 11,715	177 16,714	236 20,116	585 36,005	32 4,261	64 10,692	1,187 99,503	
WMA Totals	1,088	1,231	1,039	1,885	681	910	6,834	
Grand Totals	12,803	17,945	21,155	37,890	4,942	11,602	106,337	

Table 2: WMA Harvest							
WMA		hery		Jn Mala		eloader	Grand Total
Altus-Lugert WMA	Female 9	Male 17	Female 1	Male 9	Female 2	Male 5	43
Arbuckle Springs WMA	5	10	5	2	0	0	22
Atoka PHA Atoka WMA	2 8	4 15	9	9 19	6	8 6	38 54
Beaver River (McFarland Unit)	1	2	0	7	0	0	10
Beaver River WMA Black Kettle WMA	23	6 27	1 147	5 222	4	17 21	34 484
"Blue River Public Hunting & Fishing Area"	6	8	0	4	0	0	18
Broken Bow WMA	4	8	13	23	6	10	64
Burtschi PFA Candy Creek WMA	3 2	3 4	0 2	0 2	0 2	0	6 12
Canton WMA	30	19	7	35	10	6	106
Cherokee WMA (GMA Portion)	11	7	13	29	1	3	64
Cherokee WMA {PHA Portion) Chickasaw National Recreation Area	10 16	19 12	5 13	27 14	18 5	34 5	113 65
Cimarron Bluff WMA	0	4	0	0	0	0	4
Cimarron Hills WMA Cookson Hills WMA	0 7	0 12	0	1	0	0 2	1
Cooper WMA	4	3	6 2	26 29	1	0	56 39
Copan WMA	18	22	3	28	9	6	86
Cross Timbers WMA Deep Fork NWR	20 14	29 19	16 0	7 0	11 11	5 14	88 58
Deep Fork WMA	10	12	12	12	6	9	61
Dewey County WMA	0	1	0	2	1	0	4
Drummond Flats WMA	7	5	0	1	0	0	10
Ellis County WMA Eufaula WMA	25	6 20	4 23	36 23	11	1 16	65 113
Fobb Bottom WMA	4	7	8	13	7	4	43
Fort Cobb State Park	3 22	0 14	2 9	2 8	0	0	7 53
Fort Cobb WMA Fort Gibson Waterfowl Refuge	4	14	0	0	14	7	26
Fort Gibson WMA	90	77	8	53	34	So	312
Fort Supply WMA	30 7	53 10	46	55 14	22 8	19 4	225 45
Fort Supply WMA Gary Sherrer WMA (Bolen Hollow)	0	2	0	14	0	1	45
Gist WMA	1	5	0	0	0	Ó	6
Grady Co. WMA Grassy Slough WMA	0	5	0	2	1 0	2	10
Great Salt Plains State Park	1	2	0	0	0	0	3
Gruber (CGTC)	7	10	4	37	36	52	146
Hackberry Flat WMA Hall PFA	3	5	0	0	2	0	10 1
Heyburn WMA	12	11	20	19	5	4	71
Hickory Creek WMA	3	3	9	10	4	3	32
Honobia WMA Hugo WMA	9 51	18 53	33 39	42 63	20 21	55 55	177 282
Hulah WMA	17	30	3	81	22	16	169
James Collins WMA	40	53	9	39	0	0	141
Jap Beaver PFA John Dahl WMA (Osage)	0	1 0	0 2	0	0	0	1 6
Kaw WMA	30	54	So	80	29	34	277
Keystone WMA	35	27	23	42	10	11	148
Lake Thunderbird State Park Lexington WMA	33 24	25 23	2 24	0 20	1 12	1 25	62 128
Little River NWR	5	2	2	1	0	0	10
Love Valley WMA Lower Illinois River WMA	3	5 3	19 0	19 0	2	7 0	55 4
Major County WMA	0	0	0	3	0	0	3
McAlester Army Ammunition Plant	74	83	9	2	0	0	168
McCurtain Co. WA McGee Creek WMA	6	1 18	18 3	29 11	5 1	5 11	64 58
Mountain Park WMA	6	4	0	0	5	2	17
Neosho WMA	4	2	1	1	2	1	11
Okmulgee WMA (GMA Portion) Okmulgee WMA (PHA Portion)	4 3	1 3	5	17 6	0	0 7	27 19
Oologah WMA	42	48	43	68	22	24	247
Optima National Wildlife Refuge	0	2	0	1 23	0	0 2	3 28
Optima WMA Osage WMA - Rock Creek	2	6	3	9	3	2	25
Osage WMA - Western Wall	10	12	0	1	1	8	32
Ouachita WMA (Cucumber Creek) Ouachita WMA (McCurtain Unit)	0 12	0 15	0 24	0 41	0 17	1 40	1 149
Ouachita WMA LeFlore	16	13	33	64	32	48	206
Ozark Plateau WMA	1	1	1	1	1	0	5
Packsaddle WMA Pine Creek WMA	5 10	3 7	9 7	86 13	26 6	10 7	139 So
Pushmataha WMA	6	13	9	28	3	16	75
Red Slough WMA Rita Blanca WMA	10	11	1 0	1 3	1 0	0	24 3
Robbers Cave WMA	0	0	0	0	0	0	0
Robert S. Kerr WMA	8	10	4	10	4	9	45
Salt Plains National Wildlife Refuge San Bois WMA	6	4 0	33	22 0	11	11 0	87 0
Sandy Sanders WMA	10	19	2	6	2	8	47
Schooler PFA	0	0	0	0	0	0	0
Schultz WMA	0	0	0	1	0	0	1
Sequoyah NWR Shorb WMA	8	12	3	3	34 0	5	65 0
Skiatook WMA	7	8	19	16	3	2	55
Sparrow Hawk WMA	0	0	0	3	0	0	3
Spavinaw WMA (GMA Portion) Spavinaw WMA (PHA Portion)	13 0	9	15 3	15 4	2	5 2	59 13
Stringtown WMA	2	2	0	5	3	8	20
Tenkiller-B-Cabin WMA	2 2	2	4	3	2	1	14
Texoma/Washita arm WMA Three Rivers WMA	1 70	6 45	8 126	16 126	1 49	2 105	34 521
Tishomingo National Wildlife Refuge	0	0	13	6	0	0	19
Tishomingo WMA	2	7	1	5	0	0	15
Vanderwork PFA Washita County WMA	0	0 2	0	0	0	0	0 2
Waurika WMA	34	46	3	3	11	6	103
Webbers Fall WMA	1	0	1	1	3	0	6
Whitegrass Flats WMA Wichita MTS NWR	0	0	0 12	0 20	0	0	0 32
Wister WMA	19	18	19	28	15	32	131
Wister WRP Yourman WMA	2	1 2	2	4	3	7	19 16
WMA Total	1,088	1,231	1,039	1,885	681	910	16 6,834
County Total	11,715	16,714	20,116	36,005	4,261	10,692	99,503
Grand Total	12,803	17,945	21,155	37,890	4,942	11,602	106,337

County, with 2,892 deer harvested.

Oklahoma is limited in regards to options for public land hunting, as 97 percent of the state is privately owned property. However, hunters do have great options on Wildlife Department WMAs and other public lands. Despite only making up 3 percent of the total acreage in the state, public land made up for 6.4 percent of the total harvest. Details of public land harvest can be seen in **Table 2**.

As habitat continues to improve in the western portions of the state, increasing mule deer numbers have been reported by Department personnel working in those areas. Table 3 shows mule deer harvest from the 2019-20 season.

ARCHERY SEASON

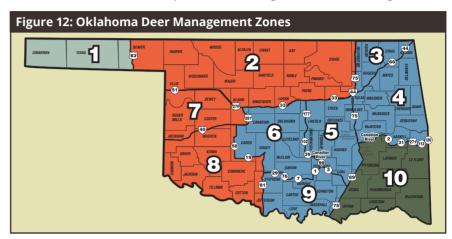
The 2019-20 archery deer season was a record-setter in more ways than one. First, a record number of participants took to the woods with a bow this year. The Wildlife Department's annual Game Harvest Survey (GHS) estimated more than 113,000 hunters went to the fields and forests with archery equipment in hand. Second, a new harvest record of 30,748 animals was reported through E-check, accounting for 28.9 percent of the harvest. Of the archery harvest, 17,945 of them were bucks, and the remaining 12,803 were does. Success rates using archery equipment according to the Game Harvest Survey was 31 percent.

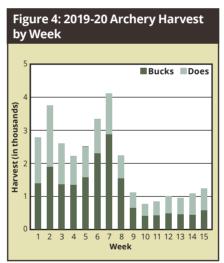
Regulations remained unchanged for the 2019-20 archery deer season, and the season ran from Oct. 1, 2019, through Jan. 15, 2020. The

bag limit was six deer, no more than two of which could be antlered. A breakdown of harvest by sex and by week can be seen in Figure 4. Figure 5 depicts hunter numbers and harvest totals from 2004 to this past year.

MUZZLELOADER SEASON

From Oct. 26 through Nov. 3, 2019, hunters were al-Mule deer harvest showed a slight increase this season. lowed to pursue deer using a muzzleloader. Bag limits re-





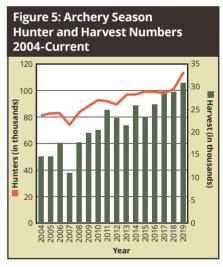
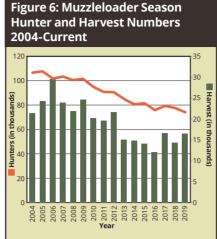


Table 3: 2020 Mule Deer Harvest by County, Season and Sex							
County	Arc	Archery		Gun		Muzzleloader	
	Female	Male	Female	Male	Female	Male	Grand Total
Beaver	0	3	0	30	0	4	37
Beckham	0	6	0	5	0	3	14
Cimarron	1	9	0	77	0	7	94
Custer	0	0	0	1	0	0	1
Ellis	0	5	0	5	0	2	12
Greer	0	0	0	2	0	0	2
Harmon	0	1	0	7	0	0	8
Harper	0	5	0	9	0	1	15
Major	0	1	0	5	0	2	8
Roger Mills	0	6	0	4	0	0	10
Texas	0	5	0	27	0	8	40
Washita	0	0	0	3	0	0	3
Woods	0	2	0	1	0	0	3
Woodward	0	0	0	5	0	0	5
Grand Total	1	43	0	181	0	27	252





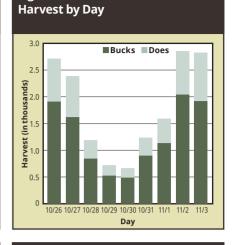


Figure 7: 2019 Muzzleloader

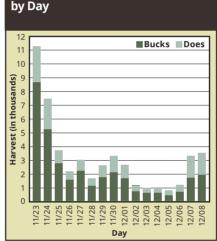
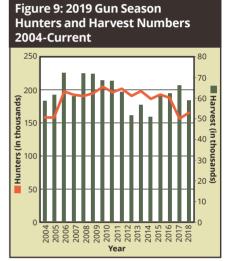


Figure 8: 2019 Gun Season Harvest



mained unchanged: Hunters could take three deer, with no more than one antlered. Hunters wanting to harvest more than one antlerless deer had to harvest at least one antlerless deer from Management Zones 2, 7 or 8 (refer to the Oklahoma Deer Management Zones map in **Figure 12**. The Game Harvest Survey estimated 74,090 hunters took advantage of this very underused method. Harvest totals reached 16,554, which is the second-highest total in the past seven years. Doe harvest was 4,942 deer, while buck harvest was 11,062 deer. Those deer harvested with a muzzleloader made up 15.6 percent of the total 2019-20 harvest. A breakdown of hunter numbers and harvest can be found in **Figure 6**, while a day-by-day breakdown of harvest by sex can be seen in **Figure 7**.

GUN SEASON

The 2019-20 deer gun season opened Nov. 23 and ran for 16 consecutive days ending Dec. 8. Bag limits remained unchanged from the previous year, allowing hunters to harvest three deer, with no more than one antlered. Hunters wanting to harvest more than one antlerless deer had

to harvest at least one antierless deer from Management Zones 2, 7 or 8. A day-by-day breakdown of harvest is shown in **Figure 8**. See **Figure 12** for Oklahoma's Antierless Deer Zones.

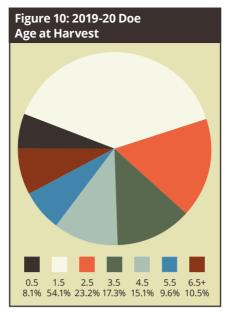
The youth deer gun season was Oct. 18-20. The Game Harvest Survey estimated 5,804 youth hunters participated, resulting in the harvest of 3,920 deer.

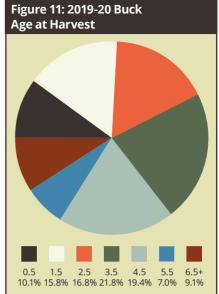
The holiday antlerless gun season gave firearms hunters a final opportunity to reach management goals or fill their freezers. This season started Dec. 20 and ran for 10 days, ending Dec. 29. The estimated 39,385 hunters that participated managed to bag 3,758 antlerless deer, which are considered bonus deer and do not count toward the hunter's season limit of six deer.

The GHS estimated 165,763 hunters participated in some form of gun season hunting for deer. Hunter numbers and harvest data can be seen dating back to 2004 in **Figure 9**. In total, 59,045 deer were harvested using a modern firearm, making up 55.5 percent of the total harvest.

DEER AGE STRUCTURE 2019-20

Each season, the Wildlife Department enlists students from universities across the state to collect deer iaws from taxidermists, controlled hunts and meat processors, with the hunter's approval. These jaws, combined with jaws from Deer Management Assistance Program cooperators and the Age My Deer online submission form, allow biologists to determine an age for that deer. This provides data about harvest pressure as it relates to specific age classes. A breakdown of age classes harvested for does and bucks can be seen in Figure 10 and Figure 11.





ELK

For the sixth season, hunters had the opportunity to harvest elk statewide on private land with written landowner permission, as well as through the Department's controlled hunts offerings. The private-land seasons ran concurrently with open deer seasons, except in the state's Special Southwest Zone, which had its own separate seasons. Hunter efforts during the 2019-20 seasons resulted in 376 elk being harvested across the state, which is down 5 percent from last year. Bulls made up 174 (46 percent) of harvest, and cows made up the remaining 202 (54 percent).

The Cookson Wildlife Management Area controlled hunt yielded one bull elk, filling the only allotted tag. The Wichita Mountains Wildlife Refuge controlled hunts re-

sulted in 170 elk being harvested: 65 bulls and 118 cows.

A breakdown of harvest by county, sex and method can be seen in **Table 4**.

Table 4: Elk Harvest by County, Sex and Method								
County	Archery		Gı	Gun		Muzzleloader		
County	Bull	Cow	Bull	Cow	Bull	Cow	Total	
Beckham	0	0	2	5	1	0	8	
Caddo	2	0	5	6	0	0	13	
Carter	1	0	0	0	0	0	1	
Cherokee	1	1	3	7	1	0	13	
Cimarron	5	0	1	0	0	0	6	
Coal	1	0	0	0	0	0	1	
Comanche	12	7	108	146	2	2	277	
Dewey	1	0	0	0	0	0	1	
Greer	0	0	1	0	0	0	1	
Johnston	0	0	0	1	0	0	1	
Kiowa	3	0	17	22	0	0	42	
Muskogee	0	1	0	1	0	0	2	
Pushmataha	2	0	0	0	0	0	2	
Sequoyah	0	1	0	0	0	0	1	
Texas	3	0	1	2	1	0	7	
Grand Total	31	10	138	190	5	2	376	



HUNTERS AGAINST HUNGER—DO YOUR PART!

Oklahoma is hungry, and hunters can help!

As deer hunting opportunities expand throughout fall, the Wildlife Department and participating pro-

Hunter campaign.

And this year, with liberalized regulations allowing more antlerless deer harvest, hunters have even more incentive to do something good for neighbors in need. Since 2002, Hunters Against Hunger has been providing fresh venison to hungry Oklahomans and their families.

This program allows hunters who legally harvest a deer during any of the state's deer seasons to donate the meat. It's a cooperative effort among hunters, local processors, food pantries and the Wildlife Department.

Participation by deer processors and hunters is the key to success. After E-checking their harvest, the hunter simply drops off the deer at any Hunters Against Hunger participating processor. Hunters are asked to donate \$10 toward the processing of each deer they donate

unters

to the Hunters Against Hunger program. The Wildlife Department will also assist participating processors with processing fees for the donated deer. Once processors have finished pro-

cessors are gearing up for another season of the Hunters Against cessing the meat, they will contact a local qualified charitable organization (as listed through Oklahoma food banks) to pick up the meat. The donated meat normally stays within those local communities.

> Since its inception, Hunters Against Hunger has provided more than 550,000 pounds of venison to local food pantries. That equates to about 2 million meals provided.

> Hunters wishing to donate simply need to ensure their harvested deer has been reported with the Wildlife Department's E-Check system. Then, hunters can take their carcass-tagged deer to a nearby participating meat processor during any deer season.

> The Wildlife Department extends a special thanks to all participating processors for their participation in the program. This important program would not work without you. Any processor interested in joining the program, or anyone wishing to become a sponsor or make a monetary donation, may call the Wildlife Department at (405) 521-4660.

OKLAHOMA DEER PROCESSORS (Red star * indicates Hunters Against Hunger participant.)

Adair, TNT Processing, 467163 E. 924 Road, Bunch, (918) 575-0320 or (479) 524-2781

Atoka, McCarty's Wild Game Processing, 13356 S. Centerpoint Road, Atoka, (580) 239-2108

Atoka, Mixon Wild Game Processing, 1411 Dairy Lane, Atoka, (580) 239-1735

canadian, Larry's Meat Market, 20180 Hwy 152, Union City, (405) 483-5504

Carter, Ernie's Meat Market, 410 S. Washington, Ardmore, (580) 226-3686

Cleveland, K&L Wild Game Processing, 2251 S.E. 180th St., Norman, (405) 401-7013

Cleveland, Thunderbird Meat Processing, 201 S.E. 156 Ave., Norman, (405) 364-5270

Coal, Bills Custom Processing, https://g.co/

kgs/beHZy4, Coalgate, (580) 428-3028 Coal, H&L Custom Processing, Rt. 5 Box 295, Coalgate, (580) 927-5154

Cotton, Anderson Processing, Rt. 1 Box 1030, Walters, (580) 704-0443

Cotton, Temple Processing, W. Central St., Temple, (580) 342-5031

Craig, Tagged Out Processing, (918) 915-1336, 436963 E. 250 Road, Vinita Craig, A Cut Above Processing, 442175 E. Hwy 10, Vinita, (918) 244-0496

Creek, Wildlife Action Taxidermy & Deer Processing, 11212 S. 337 W. Ave., Mannford,

(918) 899-8262 or (918) 504-9083

Creek, Deer Processing & Taxidermy, 6541 S. 161 St. W., Sapulpa, (918) 224-8562

Custer, Market 54, 10152 N. Hwy 54, Weatherford, (580) 772-3510

Garvin, Whitetail Ridge Deer Processing, 21535 N. County Road 3380, Stratford, (405) 207-4279 Haskell, Kilgore Meat Processors, 908 S.E. E St., Stigler, (918) 967-2613

Hughes, Brown's Deer Processing, 7911 E. 137 Road (3 miles south and 1 mile west Hwy 75 and 270), Holdenville, (405) 379-6567

Kay, Osage Country Meats, 64934 U.S. Hwy 60 East, Ponca City, (580) 762-8026

Kay, Tonkawa Meat Processing, 707 S. Public, Tonkawa, (580) 628-4550

Le Flore, Weaver's Meat Market, 34842 U.S. Hwy 59 South, Poteau, (918) 649-0597 or (918) 647-9832

Lincoln, D&C Processing, 880711 S 3340 Road, Wellston, (405) 213-4178

Logan, Homestead Meats & Processing, 9860 Old N.E. Hwy 33 (For GPS users, enter business name), Guthrie, (405) 919-5375

★Logan, Sallee's Meat Processing, 7901 S. Sooner Road, Guthrie, (405) 282-1241

★Mayes, Bontrager Deer Processing, 6836 W. 590 Road (2.5 miles west of Love's Store on Old Hwy 33), Chouteau, (918) 476-7681

McClain, Absolute Taxidermy & Processing, 26254 180 St., Purcell, (405) 694-1988

McClain, Casa De Taxidermy & Wild Game Processing, 2350 S. Hwy 76, Newcastle, (405) 392-5597

McCurtain, White's Deer Processing, 1190 Beachton Road, Smithville, (580) 306-9710

Murray, WR Meat Processing, 2354 E. Hwy 7, Sulphur, (580) 622-5929 or (580) 622-2494 Murray, Davis Arctic Processing, 316 E. Main, Davis, (580) 369-2836

Noble, BGT Deer Processing, 17 S. 11, Perry, (580) 370-6864

Noble, Ed's Taxidermy & Wild Game Processing, 10940 Boonesboro, Perry, (580) 370-1701

Nowata, Anderson Processing, OK 28, Delaware, (918) 467-3659

Oklahoma, Nowakowski Processing, 20870 E. Main, Harrah, (405) 454-6162

†Oklahoma, Terry's Taxidermy, 9201 W. Reno, Oklahoma City, (405) 787-7883

Cosage, Barnsdall Meat Processing (only accepts donated deer), 34 Florence, Barnsdall, (918) 847-2814

Country Meat Market, 801 E. 1st, Hominy, (918) 885-6758

★Ottawa, High's Deer Processing, 402 W. Market, Fairland, (918) 676-3203 or (918) 533-3318 Ottawa, Cook's Processing, 2603 E St. S.W., Miami, (918) 542-5796

Pittsburg, Kav's Meat Processing, 5246 Hardy Springs Road, McAlester, (918) 423-7400

Pontotoc, Charlie's Deer Processing, 620 N. Main Ada (580) 332-2266

★Pontotoc, Claborn Processing, 12350 State Hwy 3W, Ada, (580) 436-3709 or (580) 332-0698

Pottawatomie, Lucky Day Sports Center, 15909 Brangus Road, Shawnee, (405) 273-3981 or (405) 924-0288 after hours

Pushmataha, Tater Hills Deer Processing, 7 miles north of Clayton on Hwy 2 to Sardis Acres Road, Tuskahoma, (918) 917-0607 Rogers, Muns Meat Co., 6070 S. Industrial Drive, Chelsea, (918) 789-3514

Seminole, Phay's Cattle Co., 12972 N.S. 358, Seminole, (405) 398-4791 or (405) 683-3141

Sequoyah, 3:16 Deer Processing, 104419 S. 4640 Road, Sallisaw, (918) 775-0760

Sequoyah, Maple Deer Processing, 471755 E. 1070 Road, Muldrow, (918) 208-9290

Sequoyah, Village Processing Plant, 2808 S. Kerr Boulevard, Sallisaw, (918) 776-9183

Stephens, Brooks Meat Market, 1711 U.S. 81, Duncan, (580) 255-1421

***Washington**, Peck's Custom Butchering, 13911 Hwy 75, Dewey, (918)534-1382

Washita, Keith's Butcher Shop, 335 Highway 44, Burns Flat, (580) 562-3220

Washita, Schone's Butcher Shop, Old U.S. Hwy 66, Canute, (580) 472-3300

Woodward, Cinnamon Creek Wild Game Processing, 5005 Oklahoma Ave., Woodward, (940) 367-5344

For more information, go online to wildlifedepartment.com/hunting/hah.



SEPTEMBER/OCTOBER 2020 23



PRONGHORN

The Oklahoma Panhandle continues to support a population stable enough to allow a hunting season for pronghorn, the fastest land animal in North America. Hunting opportunities included an over-the-counter archery license, Department controlled hunts permits, and landowner drawn permits. All of these opportunities combined for a total of 169 pronghorn being harvested in the open zone, which includes Cimarron and the western half of Texas County.

Bucks led the harvest total with 88, while doe harvest totaled 81. Hunters toting stick-and-string managed to harvest 23 pronghorn in Cimarron County and six pronghorn in Texas County. The majority of harvest came from rifle hunters, which included those lucky enough to draw a once-in-a-lifetime hunt through the controlled hunts program, and landowners who received a permit. Texas County accounted for 37 pronghorn harvested, while hunters in Cimarron County harvested 101 with a rifle.

These animals are often called pronghorn antelope, but they actually are not related to antelope at all. They are the last surviving member of the *Antilocapridae* family of mammals, and they have existed in North America for more than a million years. Gazelles and goats are relatives.

A breakdown of pronghorn harvest by county, sex, and method of take can be seen in **Table 5**.

Table 5: Antelope Harvest by County, Sex and Method								
Country	Arcl	nery	Gı	Grand				
County	Buck	Doe	Buck	Doe	Total			
Cimarron	2	21	57	44	124			
Texas	1	5	21	18	45			
Total	3	26	78	62	169			

CONCLUSIONS

Deer hunters in Oklahoma continue to enjoy a healthy deer herd, providing ample harvest opportunities on a statewide basis. Generally speaking, the habitat and herd have both rebounded from drought conditions in the west, and floods throughout the east. Multiple summers with ample rainfall have resulted in growing populations statewide.

Fortunately, we have implemented a management strategy that allows flexibility to respond to the ebb and flow of deer numbers at a localized level. As hunters begin to show more emphasis on harvesting mature bucks, trophy potential is not as handcuffed regionally as in years past. Reports of impressive deer coming from every corner of the state are becoming the norm.

While overall harvest totals were not record-setting, we did see a record year for archery hunters in regards to harvest and participation. Success rates for archery and muzzleloader hunters were at an all-time high.

Oklahoma is unique in both its vast landscapes and its hunting heritage depends on it. W

liberal deer hunting opportunities, all while maintaining a healthy buck age structure due to hunters letting younger bucks pass via voluntary restraint ("Hunters in the Know ... Let Young Bucks Grow!"). Using science-based regulations and encouraging the deer hunters themselves to help as managers, the Department is constantly working toward the goal of balanced deer herds in comparison to local habitat conditions and healthy age structures. This is imperative for future generations of both wildlife and hunters alike.

I wish all of you the best in your outdoor endeavors during the 2020-21 seasons. Keep in mind that every time you pull the trigger or let an arrow fly, you are making a deer management decision that has an impact on that population. So, this coming season, be a deer hunter who is "in the know." It's easy just by decided to do two things: letting young bucks grow and taking a doe.

And don't forget to take someone new to our sport; our hunting heritage depends on it.

HUNTERS TAKE 61 OKLAHOMA BLACK

By Jeff Ford, Wildlife Biologist

Despite a slow start, Oklahoma's 2019 black bear hunting seasons gathered momentum in later weeks, producing a harvest of 61 animals in all.

"Oklahoma bear hunters who didn't give up early saw some success." said Jeff Ford, a wildlife biologist for the Oklahoma Department of Wildlife Conservation. "Last year started out slow. The weather was very warm, and there was plenty of food on the ground for the bears."

The 2019 archery and muzzleloader black bear seasons were the first to give hunters an expanded area of opportunity to take a bear. Since the first bear season in 2009, hunting had been restricted to only the four counties in the extreme southeastern corner of the state. In 2019, the open area for bear season expanded to all of portions of 12 counties.

Ford said archery hunters took 57 bears while muzzleloader hunters took 4 this past year. The numbers were down from a record-setting 2018, when a total of 85 bears were harvested.

"Each year while working in the field, we see some amazing bears. They are out there. I am surprised at the size of some of these animals.

"Some bear hunters have taken time in the field to hone their skills. We see several of the same people



The 2020 season will be Oklahoma's 12th for bear hunting. During the first 11 bear seasons, Oklahoma bear hunters have harvested 528 bears. Some Oklahoma bears have been very large, with several qualifying for Boone and Crockett listings, and many scoring more than enough for the state's Cy Curtis big game record book. Ford said the heaviest bear he recalls being taken in Oklahoma tipped the scales at 638 pounds.

"We have had some very old bears harvested, one male around 20 years old. If you hold out and maybe let the younger bears walk by, you could end up with a trophy of a lifetime."

2020 is looking like it will be a good year for bear hunters, even though it's been hot and dry in most areas where bear hunting is allowed. "It looks like there will be plenty of acorns, but soft masts such as persimmons and grapes

are out earlier in the season may have better chances for a harvest."

Oklahoma's bear populations in the southeast are still increasing, and bears are being seen in areas farther west that don't usually see them.

Ford reminds hunters not to pass on an opportunity to take a bear in the newly opened areas. "Do a little scouting, put out some trail cameras, and you may be surprised at what you see. We had a lucky hunter in Atoka County harvest a very nice boar last year." All hunters wanting to pursue a black bear in 2020 must buy either an archery or muzzleloader bear license before the opening dates of each season.

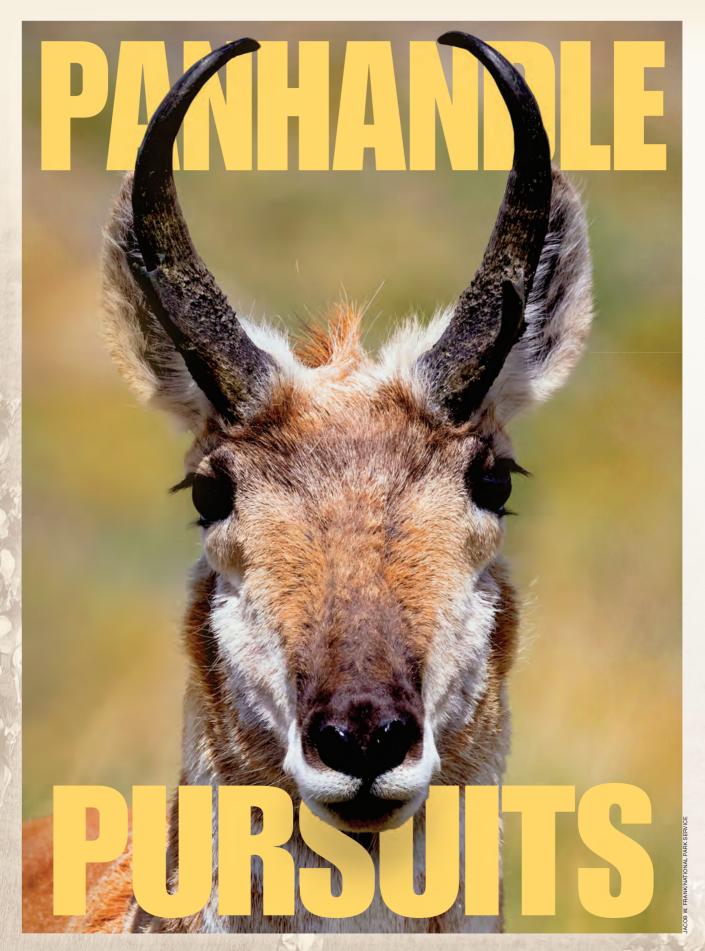
Archery bear season dates are defined by statute, running from Oct. 1 until the third Sunday in October. The 2020 bear season will close Oct. 18. There is no archery season harvest quota.

Muzzleloader bear season will be Oct. 24-Nov. 1, but the season will close as soon as a quota of 20 bears has been reached. Before they hunt, muzzleloader hunters must call for the latest bear quota information at (888) 901-3256.

For more on bear hunting, consult the Oklahoma Hunting & Fishing Regulations Guide available at www.wildlifedepartment.com, in the Go Outdoors Oklahoma mobile app for Apple and Android, or in print free at license dealers statewide.



SEPTEMBER/OCTOBER 2020 25



26

Biologist Keeps Up to Speed On Pronghorn From Above

By Don P. Brown Information and Education Specialist

February's bright morning sunlight cast crisp shadows across the frigid, nearly bare grassland. Nothing much to see from 1,000 feet over the shortgrass prairie and young wheat fields of Oklahoma's western Panhandle. Well, not unless you know what you're looking for.

Suddenly, Weston Storer points out the window of the small plane. It's a good thing roller coaster rides don't really bother him, because the pilot immediately rolls the plane on its side and into a steep dive. The low-angle sunlight had enabled Storer to spot what he was seeking: a herd of pronghorn.

"The surveys are done in the morning, which means the sunlight is lower and the white patches on the side of the pronghorn are more visible from the air," said Storer, a Wildlife Biologist for the Oklahoma Department of Wildlife Conservation based in the Oklahoma Panhandle.

On this day, the survey flights were taking place a few miles south of Guymon. The chartered plane was flying

west and then back east across both Texas and Cimarron counties, completing one of five scheduled days of survey flights. The annual aerial surveys are a good way to collect accurate scientific data about the pronghorn population in the Panhandle.

And it's the science that allows biologists to help the Wildlife Department manage the resource and the habitat so that they will be around for future generations.

Storer is passionate about pronghorn. He's been involved with them for a decade, and fine-tuning the processes in that time. Aerial surveys of pronghorn in Oklahoma had been conducted only every three to five years until high variability showed the need for annual winter counts, which began in 2013.

Oftentimes the pronghorn gets a bad rap from ranchers. And that's something Storer says is really not warranted.

"Most ranchers don't realize they are not competing with cattle over the grass," Storer said. "Pronghorns are focused on forbs 75 percent of the time. They are really after the weeds." During the day, they spend their time out on the open wheat fields, which makes



Aerial surveys are done yearly to keep tabs on the pronghorn population in Oklahoma's Panhandle. This data helps wildlife biologists recommend hunting season dates and limits based on scientific data.



Charter pilot Roger Messenger and Wildlife Biologist Weston Storer meet at sunup to discuss the day's flight plan over the Panhandle.

them very visible to the farmers and ranchers and, which then makes them easier to blame for depredation issues.

Whenever the biologist is able to share some education, the landowners often come away seeing some benefits of having pronghorn. "They are not destroying the crops as bad as you think they are, and you might be able to make a little money with hunting leases."

People often call these animals "pronghorn antelope." But scientifically they are not members of the antelope family. Pronghorn are the last living example of the Antilocapridae family, and are most closely related to bovids including gazelles and goats. With the nickname "speed goat," they are the fastest land animal in the Western Hemisphere and can hit 55 mph on flat ground.

"When we get after them with an airplane, they grab every gear they have and they are finding a way out!" But Storer said when the animals flee, they generally get into a line. "We can usually just follow up behind them and get an accurate count," Storer said.

The chartered single-engine survey plane usually carries a pilot and two surveyors. As the aircraft flies a straight line east or west, the surveyors are looking out either side of the aircraft to a distance of one mile. When a herd is spotted, the pilot begins descending with the goal of chasing the animals to the south. One surveyor counts the total number of pronghorn, while the other counts only the males with black cheek patches. This is how the number of bucks and does is calculated.

Survey transects are flown along the southern border of the Panhandle at first, then progress northward until reaching the border of Kansas. By pushing the herds in a southerly direction when counted, the surveyors are reducing the chance of seeing the same animals twice. It takes about a week of morning flights to complete the aerial survey.



The survey plane takes to the air first thing in the morning to fly a grid in search of pronghorn.



The herd begins to move as the aircraft maneuvers over the field. The chase is on to get an accurate count.



A pronghorn herd will normally spread out in a line when running, making the counting easier for aerial surveyors.



A view from the trailing survey aircraft as the herd streaks across the fields at speeds as great as 55 mph.



Wildlife Biologist Weston Storer speaks with Game Warden Supervisor Max Crocker on a dirt road in Texas County. While Storer is involved with managing the state's pronghorn population, Crocker and other Game Wardens protect the resource by enforcing game laws.



The survey aircraft flies alongside a group of pronghorns as Storer counts the number of bucks and does.



WATCH IT ON TV!

Fly along with Wildlife Biologist Weston Storer as he surveys pronghorn in the Panhandle on an Outdoor Oklahoma TV show set to air soon on OETA. Watch Outdoor Oklahoma online anytime at youtube.com/ OutdoorOklahoma.

Pronghorn management practices include hunting to help keep populations in a healthy state, which means between 2,000 and 2,500 pronghorn throughout the Panhandle. The aerial survey results are used to determine how many pronghorn licenses can be issued each year through controlled hunts or landowner permit drawings. And now, those license numbers can fluctuate to a greater extent based on management needs.

Storer said the number of hunting permits each year is based on about 35 percent of the survey's buck pronghorn count. Controlled hunt permits are issued for either-sex or doe-only harvest.

"Our numbers are not high enough to have an over-the-counter (gun) hunt," Storer said. But the numbers do support archery licenses, which are available over-the-counter to anyone wanting to hunt by that method. "It gives anyone an opportunity to go hunt one without having to draw."

Still, the pronghorn buck controlled hunts, along with the Wichita Mountains bull elk controlled hunts, are the premier hunting opportunities available in Oklahoma. And they are both once-in-a-lifetime opportunities.

Pronghorn have been in Oklahoma for thousands of years. Depictions of them along with bighorn sheep are seen in some primitive stone drawings in the Kenton

area. They thrive in the shortgrass prairie, and so they are pretty much contained in the Panhandle and won't expand eastward, Storer said.

In the early and mid-1900s, the population of pronghorn in Oklahoma crashed because of high-pressure landowner management. In 1966, a small herd was reintroduced south of Elkhart, Kan. For many years, the number of pronghorn remained around 300. In the 1990s, the Wildlife Department began more intensive research and management practices, and the numbers began growing.

Storer said shortly after he arrived in the Panhandle, a severe drought gripped the region for several years and the number of pronghorn decreased greatly. That, in turn, reduced the number of hunting permits. But in his best survey year, he tallied 3,300 animals. "That's just a part of the science behind this program, and shows how it's very volatile from year to year on how the population is doing."

Every two years, Storer represents Oklahoma at the biennial Pronghorn Conference for Midwestern States, where professionals discuss the status of the species, how to improve habitat, and best practices for predator control, among other topics. Storer is excited about Oklahoma hosting the meeting in 2022.



The pronghorn is the last example of the taxonomic family to which it belongs. Not truly an antelope, it's close relatives include gazelles and goats.

BLIND AMBITION



Bob Lehmann and Dan Middleton work as a team to overcome blindness and allow a hunter to continue enjoying a lifetime passion.

Hunter Overcomes Vision Loss With a Little Help From Friend

By Don P. Brown, Information and Education Specialist

Nov. 9, 2019, started out cold and clear in Seminole County. Sitting in a ground blind that Saturday, Bob Lehmann of Tecumseh was hoping to harvest his first deer with a crossbow. Soon, he had an opportunity.

A small buck ambled into range in front of the blind, and Lehmann lifted his crossbow. He prepared himself to make the shot. Tension built as the 73-year-old gingerly placed his finger on the trigger. He made the slightest adjustment in aim and ... Lehmann felt a sharp poke on his thigh.

Thwack! The bolt flew true, and the buck was down!

"Did I get him?" Lehmann whispered. The answer was "yes" from his longtime friend Dan Middleton, 78, sitting beside him that morning.

Finally, deer hunting success had come for Lehmann in the two years since he was diagnosed legally blind.

"I figured my hunting days were over," Lehmann recalled when his vision began to rapidly deteriorate in early 2017. The avid deer and turkey hunter had first noticed his vision worsening about seven years earlier, and by 2016 he was having trouble using optical rifle sights. Now, he

believes the process has been going on for the past 30 years.

The culprit: myopic degeneration. "My central vision is completely gone. If I look straight at you, you're not there." He retains some peripheral vision and can make out movement, but everything is fuzzy. And he sees nothing beyond about 25 yards.

Hunting is a lifelong pursuit for Lehmann. He grew up in the wilds of the Adirondacks in upstate "I figured my hunting days were over,"
Lehmann recalled when his vision began to rapidly deteriorate in early 2017.

New York, with a shooting range beside his home. "I could just walk out my back door and go hunting." And hunt he did — deer, turkey, rabbits, squirrels and the occasional ruffed grouse.

In 1964, his family moved to Norman, where Lehmann graduated from high school.

He was working a certified registered nurse anesthetist (CRNA) at, ironically, an eye surgery center when he learned he had myopic degeneration and chose to retire in 2011. But he was able to continue to hunt through 2016.



Left: A closeup of the laser sight Bob Lehmann legally uses on his crossbow.

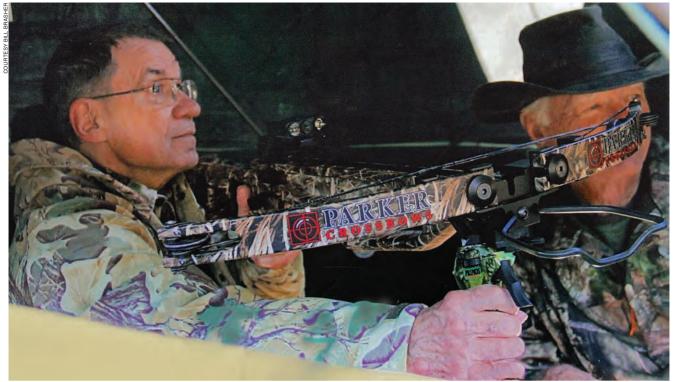
Below: Bob Lehmann demonstrates how he and his hunting buddy Dan Middleton take aim using a laser sight on Lehmann's crossbow.



Middleton, of Harrah, and Lehmann became friends after they met around a campfire while hunting at Honobia in 1975. For years, they buddied up and hunted McGee Creek Wildlife Management Area most every deer season. But over the years, Middleton was aware that his friend was losing the ability to enjoy a favorite pastime.

One day in 2017, Middleton was reviewing the Oklahoma Hunting regulations guide. "I was reading the brochure, and it had something in there about illegal weapons. It said laser sights were illegal except for the legally blind." Perhaps, he thought, that was Lehmann's ticket to keep hunting.

"I was reading the brochure, and it had something in there about illegal weapons. It said laser sights were illegal except for the legally blind."



Legally blind hunter Bob Lehmann raises his crossbow while sitting in his deer blind with friend Dan Middleton, who silently instructs Lehmann about taking his shot.



With his hand, Dan Middleton demonstrates one of the signals he gives to legally blind hunter Bob Lehmann to help line up the shot. The men developed their own system of physical signals that allows Lehmann to continue hunting despite his loss of eyesight.

The two had brainstormed before about how the blind Lehmann might keep hunting. "I laughed and kind of made a joke out of it. I said, 'Yeah, when the other hunters see me walking through the woods with my white cane, we're going to have the woods all to ourselves!'"

When Middleton told Lehmann about the legality of a laser sight, Lehmann had his doubts. "I told Dan, well, I have no way to drive to go hunting, and I can't see to do it. And he said, well, that's what he's there for!"

After double-checking with the Wildlife Department's

Law Enforcement Division, Lehmann added a laser sight to his crossbow. And the two men began working on a system. Lehmann's crossbow or rifle sits on a monopod, and he remains in complete control of the weapon. Middleton uses hand movements on the side of Lehmann's leg to help him sight in and take the shot.

They began tag-teaming during the 2017 deer season, without success.

"When the other hunters see me walking through the woods with my white cane, we're going to have the woods all to ourselves!"

Their signaling system has been trial-and-error and is constantly being fine-tuned, Middleton said. Success finally came in January 2018, when Lehmann bagged a turkey with his crossbow.

Here's how it works: When Middleton sees a turkey or a deer approaching, he raps Lehmann's leg below the knee,

then takes his index finger into his hand and points to the quarry. Lehmann moves his weapon in that direction. When the quarry gets into good range, Middleton grabs the pants leg and shakes it. Lehmann turns on the laser sight when Middleton puts his pointer finger on the side of Lehmann's thigh. Middleton watches the laser, and he moves his finger up, down, left or right to signal Lehmann where to aim. When the laser light is lined up for a good shot, Middleton pokes his finger into Lehmann's thigh — the signal to take the shot.

"It's not as easy hunting with a laser as people think," Lehmann said. He's heard some remark that it must be easy, or it's just like cheating. "Even for a sighted person, it's not easy. The animals do not like the laser light and are often gone immediately."

As it would happen, Middleton is color blind. That fact hasn't seemed to pose any problems. Instead, Lehmann jokes about it to others. "I laugh and say it's the blind leading the blind!"

Success has continued for the team. The first shotgun harvest was during the 2018 spring turkey season. The 2019 spring turkey season yielded another crossbow kill. But a deer harvest eluded them, until that cold, clear day last November.

But even coming home empty-handed has always been just fine with Lehmann. "Of course, venison is good, but that's the secondary thing. The getting-out is the fun part. I just like getting out into the woods, where it's quiet, listening to the birds. To me, that's just the fun of being out in nature, away from the brick-and-mortar. To me, it's relaxing."



Bob Lehmann with his archery turkey.



SEPTEMBER/OCTOBER 2020 35



on Oklahoma's Public Lands

National Public Lands Day, Sept. 26, celebrates the role of public lands in outdoor recreation, education and simple enjoyment. Although Oklahoma has a strong legacy of private land ownership, the state also has more than 1.4 million acres of public lands to explore, hunt or fish.

The Wildlife Department partners with other state and federal agencies to offer more than 100 wildlife management areas that conserve and enhance our fish and wildlife resources. The strong conservation goals that guide the Department have created many a sportsman's paradise ready for the next adventure. Maps, regulations, hunting season dates and other area details that can help hunters, anglers and outdoor enthusiasts plan their visits are available at www.wildlifedepartment.com.

Visitors to Department-owned areas must have a current hunting or fishing license, or Conservation Passport (a license that doesn't provide hunting or fishing privileges). These licenses help fund habitat management, fish and wildlife research, and enforcement of the state's hunting and fishing regulations. Other public lands are managed or maintained by several local, state and federal agencies or partnerships. We urge you to get outdoors and enjoy the public lands in Oklahoma.

Jena Donnell, Wildlife Diversity Information Specialist



REGION: Northwest. **SIZE/AREA:** 4,800 acres.

This area features rolling sandhill uplands and wooded creek bottomlands. The 160-acre Lake Vincent is an area bonus!



REGION: Southwest. **SIZE/AREA:** 10,300 acres.

Centrally located near our state's southern border, this WMA highlights the mixture of eastern oak forests and western grasslands known as the cross timbers.



Hackberry Flat WMA



REGION: Southwest. **SIZE/AREA:** 7,120 acres. Though known as a duck hunting hotspot, this legendary wetland also hosts a number of shorebirds in migration along with other wetland-dependent wildlife.

Ouachita WMA



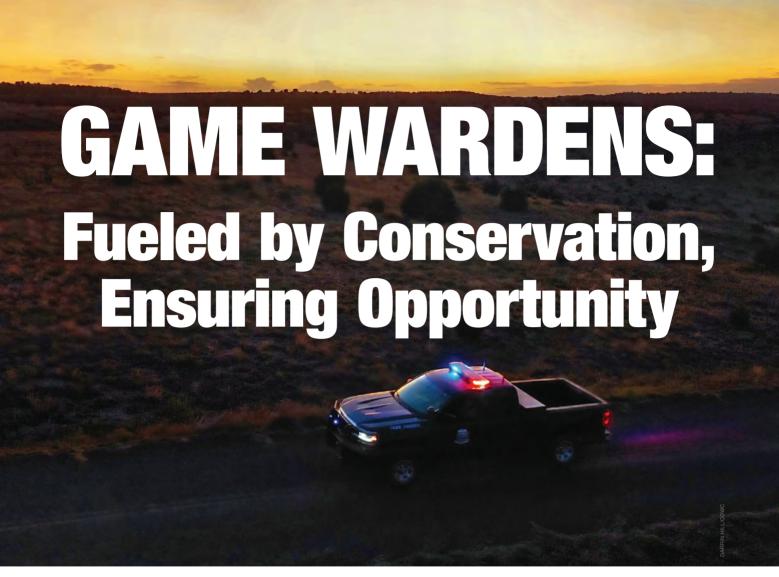
REGION: Southeast. **SIZE/AREA:** 232,000 acres. Managed cooperatively with the U.S. Forest Service, this area offers many scenic mountain vistas and adventures!



Sparrowhawk WMA



REGION: Northeast. **SIZE/AREA:** 566 acres. This primitive area is bordered to the east by the Illinois River and is almost exclusively mature hardwood, closed canopy forest.



By Lt. Joe Alexander Oklahoma Game Warden

Oklahoma is a state shaped by history and fueled by conservation. We are a land of flowing waters, pristine wilderness, picturesque mountains, salt flats, sand dunes, black mesas, red dirt, rolling hills, shortgrass, tallgrass and everything in between. The Sooner state's rich heritage inspires citizens to continue to conserve our abundant diverse species and natural resources.



The year was 1832. Seventy thousand square miles of woodland and prairie lay much as it had for centuries, home to buffalo, elk, antelope, and bear. On the grasslands, prairie chickens danced each spring to the silent drumbeat of their mating season, and in the woodlands, turkey gobbled to attract mates. The howling of wolves echoes nightly throughout the land, while whitetail deer, unused to firearms, would pause within easy gunshot to watch new pale-faced settlers riding through forests and glade.

By 1907 it was all gone. The buffalo had been wiped out. Turkey, antelope and bear had all vanished or were soon to disappear. Even the deer had dwindled to roughly 500 animals scattered in isolated areas. Also that year, the country these creatures inhabited was given a new name, Oklahoma, and became the 46th state in the union.

— "Centennial of the Oklahoma Game Warden," Gary Smeltzer.

38 OUTDOOR OKLAHOMA



Oklahoma's State Game Warden Office was created in 1909, the forebear of the Oklahoma Department of Wildlife Conservation (ODWC). The governor appointed the first Game Warden and authorized him to hire eight deputies funded by a \$1.25 annual hunting license. ODWC now has about 115 Game Wardens in the Law Enforcement Division.

The ODWC actively promotes conservation in everything it does. Its ability to manage, protect and conserve the state's wildlife without using a dime of taxpayer money is very rare. Sportsmen, sportswomen, and wildlife enthusiasts pay the bill for wildlife conservation in Oklahoma. Hunting and fishing license sales make up the bulk of ODWC's annual budget, resulting in a true user-pay, user-benefit system.

Oklahoma now boasts a rich, species-diverse state where most fish and game populations are thriving thanks to increased protection and wise conservation practices. Making sure opportunities exist for hunters, anglers and all those who appreciate wildlife is our job and our passion.

Game Wardens emphasize various tasks through the year. Spring means monitoring crappie and white bass fishing on creeks and springfed streams. As the redbuds start

to bloom, turkey season begins, and Game Wardens watch over their flocks. Spring rains bring rushing waters to rivers that are prime spawning areas for paddlefish.

Many Oklahoma anglers partic-

ipate in this unique paddlefish snagging opportunity. It is unfortunate that some people only want to take advantage of this exceptional fishery. History has shown that if there is a way to exploit a resource for profit, then it will surely hap-

pen. Paddlefish in the state's Neosho River is no exception, as they can produce some of the finest caviar in the world. This high-priced delicacy attracts black market poachers from around the world. Game Wardens work many hours patrolling rivers around the clock while paddlefish are running.

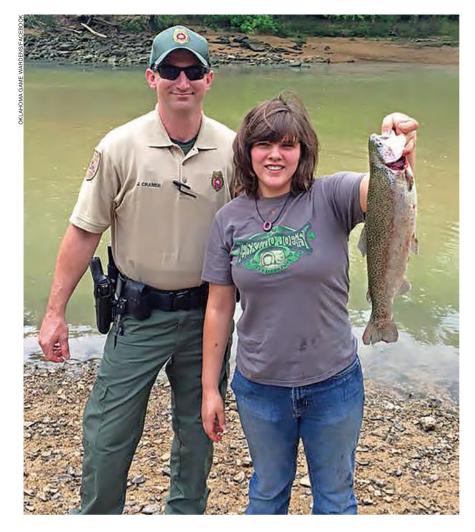
As summer heat starts fading in September, wingshooters try their luck on migratory doves. In October, Game Wardens begin focusing on the long-awaited deer season, an honored tradition in Oklahoma with some school systems letting kids out of school to go hunt. A few years back, ODWC opened elk season on pri-



vate lands, giving Game Wardens an unusual species to enjoy managing.

With winter in full swing, Oklahoma becomes the bird hunter's domain. The northwestern part of the state has quail and pheasants with agricultural fields stretching as far as the eye can see. Waterfowl hunting in Oklahoma has always been popular. Waterfowl hunters flock to the Sooner State for its exceptional wetland development units and its

SEPTEMBER/OCTOBER 2020 39





lakes and rivers. With duck season running through January and goose season into mid-February, Game Wardens have plenty to keep them busy through the winter.

Oklahoma's Game Wardens are among the most highly educated, trained, and equipped law enforcement officers in the state. Oklahoma requires applicants to possess a bachelor's degree, and preference is given to those possessing a degree in biological sciences. Positions are highly competitive, and the best applicants are selected for interviews. Applicants must have top scores on employment exams, interviews, background investigations, and drug screens. Only the most-qualified become Oklahoma Game Wardens.

Once hired, constant training begins. New hires must complete a nine-week program at ODWC headquarters in Oklahoma City, then a 16-week state law enforcement academy. After graduation, new officers are assigned to a district, where they undergo nine weeks of field training with their field training officers and supervisors. After 34 weeks of training and supervision, the new Game Wardens are ready to start working in their assigned counties. All state Game Wardens attend a minimum of 24 hours of continuing law enforcement education, mental health training, and firearms qualifications each year.

The days of bucket holsters and red handkerchiefs tied around a blinking spotlight are over. Today's Game Warden is a well-equipped modern crimefighter who has tools for each facet of his or her job. They are issued 4x4 pickups fully equipped with light bars, radios, and blackout patrol abilities. Games Wardens who patrol large remote areas are issued utility vehicles to patrol off-road areas. Some who are stationed near water have been issued the latest watercraft including large patrol vessels equipped with downscan sonar. And all Game Wardens are issued a variety of firearms.

Oklahoma Game Wardens are resourceful and technologically savvy. In the mid-1980s, road hunters were running rampant across the state.

40 OUTDOOR OKLAHOMA



Game Wardens were desperate for a tool to help stop these activities. On a freezing night, a Game Warden passed a deer struck and killed by a vehicle. He had an idea. The frozen deer was setup in an area known for road-hunting activity. It didn't take long until someone drove by and took a shot. The rest is history, and the robotic deer decoy evolved into a great tool to reduce road hunting in Oklahoma.

Game Wardens recently began collecting DNA evidence to link suspects with crime scene samples. For years, they had to make educated guesses and hope for a good confession. With DNA testing, they can build a stronger case to help ensure prosecution.

Oklahoma Game Wardens have enlisted social media as an investigative tool and a place to interact with the public. Those assigned to administer these sites answer questions, receive tips, and promote the law enforcement division. It has proved an enhancement to public outreach, making it easier for concerned citizens to turn in violators and build a following that generates interest in wildlife law enforcement.

The ODWC recently launched an Internet-based license system. This allows Game Wardens to securely access the statewide licensing system on their smart phones or laptops while in the field, which helps streamline enforcement activities.

The men and women who make up the ODWC's Law Enforcement Division are more than just a badge and a gun. These men and women truly care about conservation and serving the public to ensure the future of hunting and fishing in Oklahoma remains bright. They constantly sacrifice time and energy promoting outdoor activities while bringing the next generation of hunters and anglers into

the outdoors. Game Wardens spend countless hours teaching hunter education courses and giving educational programs to civic groups in their communities. They facilitate and host a wildlife youth camp for teens who want to pursue careers in conservation. It is not uncommon to find them assisting other ODWC divisions. They often help with conservation management such as prescribed fires, waterfowl banding, building food plots, fishing reports, and biological surveys.

Game Wardens are on the front lines of law enforcement and conservation. With advanced training in search and rescue, Oklahoma Game Wardens stand ready to help when disaster strikes. When Hurricane Harvey struck south Texas, Oklahoma Game Wardens were eager to launch a support mission to aid in rescue operations using airboats. These dedicated officers risked life and limb helping those most vulnerable. Their compassion for the public runs deep, and they're ready to serve without hesitation.

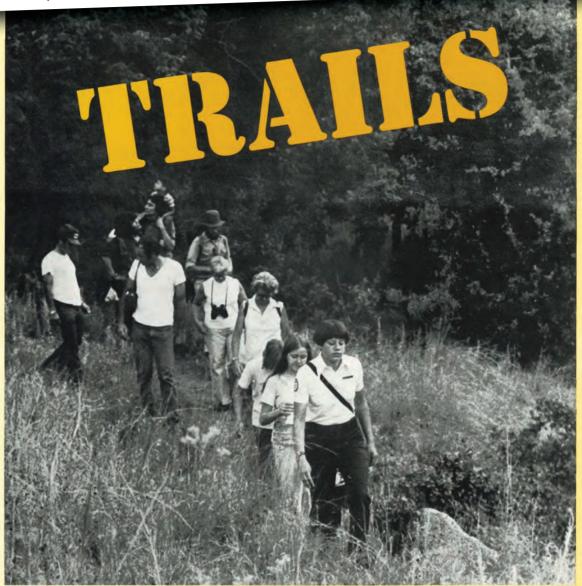
Game Wardens are often the face of conservation and of ODWC in their communities. They frequently support their communities as volunteer firemen, civic leaders, baseball coaches, and mentors. They take ownership as leaders, understanding that "conservation starts with me." If there were no Game Wardens, there would be no wildlife. These men and women are so much more than just a badge and a gun; they are Oklahoma's Game Wardens.



SEPTEMBER/OCTOBER 2020 41

Pages From the Past

Outdoor Oklahoma magazine is 75 years old this year! Many memorable items have graced the pages of nearly 650 issues printed since 1945. Here, we look back at a few of those items, just to reminisce. From the October 1976 issue, an article about improving hiking trails, and an update on the possibility of stocking Florida largemouth bass in Oklahoma.



DAVID WARREN

Oklahoma's hiking outlook improves, as state agencies make new plans.

BY CHRIS WILLE

SINCE THE AUTOMOBILE has become our primary means of transportation, we tend to overlook the small and subtle wonders of the outdoors. The best way to experience the moods and mysteries of nature is to take a walk through her backyard. A scene doesn't have to fill a windshield to be awe inspiring. The foot traveller has time to wonder at the curious pattern of lichens on a log, enjoy the ethereal

fragrances of wildflowers and bask in the breezy silence of a mountainside.

Sportsmen recognize walking as one of the elemental joys of hunting and fishing. It's also an opportunity to observe and learn. A trained and attentive eye is an outdoorsman's most valuable tool for the hunter who can interpret sign and the fisherman who can "read" water will be much more successful than those who can't.

Unless you are particularly fond of busting brush and finding your own route, the best way to walk in the

OUR THAT TEAR

TRAILS

outdoors is on an established trail. Hunters often follow "game trails" through the woods. These are the paths used by deer and other animals and usually follow the line of least resistance. But for simple recreational walking, the best trails are those that slice through a variety of ecotypes and return you safe and sound to the starting point.

Obviously, a trail like this would require some prior planning and development. And that's exactly what the Parks Division of the Oklahoma Department of Tourism and Recreation is doing. They hope to lay out and construct trails in state parks and other public lands all across Oklahoma. In the past few years, the popularity of outdoor walking has seen an amazing boom throughout the nation. Increased hiking, backpacking and Sunday walking are the predictable results of a flourishing interest in nature and outdoor exercise.

Until recently, Oklahomans had only a few developed trails that were open to the public. But that picture is changing rapidly. The Oklahoma Legislature appropriated \$25,000 to give the infantile trails program an envigorating shot in the arm. With the Parks Division as the administrating agency, the money has already been put to good use. Some trails have been built. . .many others are on the drawing board.

Tom Crider, spokesman for the Parks Division, claims that by this fall hiking trails will be established at the following state parks: Arrowhead, Beaver's Bend, Boiling Springs, Fountainhead, Great Salt Plains, Greenleaf, Little River, Murray, Robber's Cave, Sequoyah, Keystone and Quartz Mountain. Some of these parks, as well as Beaver, Red Rock Canyon and Will Rogers, are already used by hikers but will be further developed.

In recent years, trail planners have attempted to give walkers more for their shoe leather by providing leaflets, signs and other information sources that give a better understanding of the ecological workings of an area. These interpretive trails have proven to be immensely popular, for they provide the modern equivalent of having a sage, old woodsman walk with you.

Interpretive trails began with simple identifying signs to tell the hiker that this is a white oak, while the tree on your right is a cottonwood. They have become much more involved and subtly educational. The popular "window-on-the-Wichitas" trail in the Wichita Mountains Wildlife Refuge is marked with unobtrusive symbols on signposts. The symbols correspond with pages in an interesting little booklet available at the trail's head. The pamphlet tells the hiker about the type of ecosystem he is in at the moment, what to look for, what types of wildlife might be seen and so on. More importantly, it gives the reader a taste of what ecology is really all about.

Being able to identify a certain tree or grass brings you a little closer to nature, but understanding relationships is far more important: Why does a particular tree grow along the creek banks? How does its growth affect wildlife? The neighboring vegetation? The creek itself? What would happen if the creek was channelized? These are the types of questions a really aware hiker might ask himself. The answers would depend upon a good understanding of the

interrelationships between the living organisms in that ecosystem. It is this sort of knowledge that brings one into an intimate and appreciative relationship with nature.

The Parks Division hopes to make about the first one-half mile of trail interpretive at the following state parks by this fall: Murrel Home, Little River, Arrowhead, Fountainhead, Sequoyah, Keystone, Quartz Mountain and Boiling Springs. The plans call for a short section of guided trail leading into a loop or straight path of about two miles at each park.

Two parks, Robber's Cave and Beaver's Bend, have had part-time naturalists on duty. Trail tours, guided by naturalists, are scheduled regularly at the Wichitas Refuge.

Public trails are in demand by people other than hikers. Not everybody wants to visit nature on foot. There are increasing demands for trails for horses, bicycles, motorcycles and all-terrain vehicles (ATVs). The Parks Division realizes that these needs must be fulfilled too, but each presents some special problems. ATVs and motorcycles, for example, have a very serious impact on the environment and are generally not compatible with other trail uses.

Presently, gasoline powered hikers can run certain trails at Little Sahara and Boiling Springs State Parks, the Gruber Public Hunting Area and (with permission) logging roads in the southeast part of the state. There are equestrian trails at Osage Hills, Robber's Cave, Lake Murray and Pine Creek.

The Parks Division is even providing for the handicapped and the blind. Two trails, at Murrel Home and Little River, have been paved and curbed so that people in wheelchairs can enjoy a jaunt in the woods.

For those that want to do a little aimless wandering and rainbow chasing, there are some established backpacking trails in the state, and the Parks Division hopes to create more in the near future.

Existing marked trails for backpackers can be found in the Wichita Mountains Refuge (no overnight camping allowed) and in the Ouachita National Forest. Maps for the latter can be obtained at the forest ranger station in either Talihina or Heavener.

Hikers who are competent with map and compass can backpack through Robber's Cave, Osage Hills and Broken Bow State Parks; the Weyerhaeuser lands in southeastern Oklahoma and from the Department of Wildlife Conservation's Gruber Public Hunting Area to Tenkiller Lake.

The Parks Division will not be able to construct and maintain a very elaborate trails system without the aid of the people. To this end, the Oklahoma Trails Association was formed last spring. The Association is made up of hiking enthusiasts from all over the state. President Bob Ferris from Tulsa says, "The object of the Association is to promote interest in hiking and to organize efforts to build and maintain trails that all Oklahomans can use." The Association welcomes interested newcomers.

Through the efforts of progressive state agencies and enthusiastic citizens, the sport of hiking and the Oklahoma trails system can grow together. Besides providing a basic form of outdoor recreation, good hiking trails can encourage a maturing understanding of ecology among Oklahomans...two good reasons to take a walk.

BY PHILLIP W. RIEGER

FLORIDA BASS

Continuing study shows a possible future for this largemouth in some Sooner waters.

BEFORE FISH BIOLOGISTS introduce any aquatic species into an area, extensive research is done to determine its good and bad points. The animal under consideration is thoroughly evaluated in terms of its habitat requirements and interactions with other species. Possible competition with native fish is taken into careful consideration, and our existing species are checked for compatibility with the new species. Finally, controlled stockings are made to determine that the background studies are correct. Because of the care taken, the track record for the Oklahoma Department of Wildlife Conservation's Fisheries Division is quite impressive. Oklahoma's total fisheries program is very successful and includes the introductions of such exotics as northern pike, walleye, rainbow trout and the king of them all, the striped bass.

An electrofishing unit temporarily stuns fish and allows biologists to net, identify and keep records on bass in the study.

While some of these programs are still in the expansion and development stages, the Fisheries Division is looking for other species which will better balance the fish populations of our waters and offer anglers more variety and better fishing for their license money. A relatively new program of studying the Florida large-mouth bass subspecies for potential stocking into Oklahoma lakes is aimed at doing just this.

The Florida is the type of lunker bass one so often sees in photos accompanying those tantalizing stories in national sporting magazines. He is the "bucket-mouthed, sow-bellied, bigger than a log and meaner than a 'gator kind of hawg' that makes a bassin' man's well-trained hands turn to jelly and his mouth turn up in a toothy grin.

The Florida is thought to be a bigger bass for two reasons. First, it's in his biology to be large; the Florida is genetically a true subspecies of the largemouth, not just an overfed strain. Second, the warm waters he calls home provide the Florida with a continuous growing season, which means no overwinter stress period and its shortage of muscle-producing food.

Since Florida bass introductions have been successful in several neighboring states, Oklahoma Fisheries biologists wanted to give them a try in Sooner waters. Therefore, stockings took place in the springs of 1974 and 1975 at Boomer Lake in Payne County. The two-year-old program is still concerning itself with the questions of can Floridas survive in sufficient numbers, and will they still show their fantastic growth rates in our more northern lakes?

Although the data is still inconclusive, there is evidence that the Florida bass lives longer, feeds at higher temperatures and may gain weight faster than the northern largemouth

UPDATE

bass. However, there is one fly in the ointment which may keep our state record northern largemouth on top for

There is evidence that the Florida bass may not retain all of these traits in more northern climates, where low winter water temperatures could cause severe winter mortality. However, it was thought that lakes which had some form of heated water entering them would not only allow the Florida to survive, they might let the newcomer outstrip our native bass in terms of growth.

The study at Boomer Lake, undertaken by the Oklahoma Cooperative Fishery Research Unit at Oklahoma State University, was designed to see if this is the case. Boomer has a gas-fired electric generating plant on it, which creates just such a heated-water discharge and keeps the temperature of part of the lake higher than the average winter water temperature.

Hatchery-raised fingerlings of both Florida and northern bass to be stocked were marked with fluorescent spray, which would show up under ultraviolet light. This would give biologists northern and Florida bass from which they could make comparisons of growth and survival rates. This marking technique was done in both 1974 and 1975, but the earlier fingerlings also had magnetic tags implanted in their noses to allow identification



When viewed under ultraviolet light, the marked Florida and northern bass can be identified and compared for growth rates.



far beyond the life of the fluorescent pigment.

Boomer Lake was sampled by shoreline shocking with an "electrofishing" boat. Electrodes suspended in front of this boat stunned fish in the shallows, allowing them to be netted and checked for fluorescent markings. Shoreline seining was also used for the same purpose where this was convenient. Checks were also made on the locations from which the fish were taken to establish habitat differences between the two sub-species of bass.

The results from the first year showed little or no difference in growth between Floridas and our own bass. However, in 1975 the Florida bass achieved a growth rate twice that of the northern bass fingerlings during late summer to fall. During the rest of the year, growth rates were similar.

There were some striking differences in the survival rates between the two subspecies, as well. In both years, Floridas survived at a higher rate during late summer and fall than the northern bass. After that, the old nemesis of winter kill drastically reduced their numbers. The warmer water near the generating plant may have been the only thing that saved the Floridas in the cold winter of 1974-75.

Sampling at that time showed no Floridas anywhere other than in this warm area, while northern bass were widely distributed. Comparing the two marked stockings, while 93 percent of the northern bass made it through the cold months, only 3.4 percent of the warmth-loving Floridas survived. In the warm winter of 1975-76, the Floridas again had a lower survival rate than the northern subspecies, but it was higher than the previous cold winter.

The survival rate for Floridas was up to 26 percent, and they were found in all areas of the lake. In the first winter, Boomer Lake water temperatures dropped to as low as four

degrees Centigrade, and the water from the generating plant was about 11 degrees Centigrade. The second winter was milder, with lake water temperatures never below nine degrees Centigrade and the generating plant turning out water to the tune of 15 degrees Centigrade and more. This is probably the main reason that Florida bass survival jumped more than seven-anda-half times in one year.

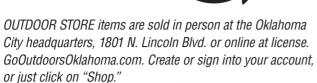
Bass fingerlings were marked with a fluorescent pig-

ment for later

identification.

From this, Cooperative Fishery Research Unit personnel reason that the lowest temperature at which Florida largemouth might survive is somewhere between four and nine degrees Centigrade. In Oklahoma waters that have heated effluent coming from electro-generating plants, there should be areas where winter water temperatures stay above nine degrees Centigrade. There also are large impoundments that should meet this temperature requirement, without the presence of generating plants such as that on Boomer Lake. If that is the case, the Florida largemouth bass might become a permanent resident in the Sooner state, although in somewhat restricted quarters.

Further research on the winter survival of Florida bass is needed and is continuing. The high mortality found in the Boomer Lake stocking may or may not be an absolute for all age classes. Some biologists feel that winter temperatures might not be as rough on older Floridas as on young-ofthe-year, such as have been evaluated so far in this study. Cases are known where Florida bass brood fish, adults kept for the eggs they produce, survived in ponds completely covered with ice, so there is research yet to be done in this area. Research also is being done on reproductive potential, competition and catchability. It simply is too soon to make anything other than cautious observations about the possibility of Florida bass becoming an important aspect of Oklahoma's sport fisheries.





Get Your Durable Collectible Card

Upgrade your license to this durable card on custom art by a local artist and support the next generation of conservationists.

Buy online at License.GoOutdoorsOklahoma.com — \$5



Oklahoma Habitat Donor Window Decals

Show your support of the Wildlife Department's Land Acquisition Fund with these striking window decals. All proceeds are earmarked to help provide hunting and fishing access to the public. — \$10 each



feature the "Outdoor Oklahoma" logo. Available selections may vary from those shown here (subject to availability). — \$20



Oklahoma Waterfowl Hunting Stamp

Oklahoma "duck stamps" are always popular with collectors and hunters. While each year's stamp features a different handsome design sure to add appeal to any stamp collection, funds from stamp sales are used for many kinds of waterfowl management projects. Specify year when ordering. — \$10

46 Outdoor Store

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

















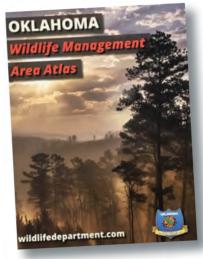


Wildlife License Plates

Dress up your vehicle while showing your support of our great state's wildlife resources by getting a wildlife license plate. Nine Wildlife Conservation Plates are available to serve as your regular, rear-bumper license plate. The plates cost just \$40 (original or replacement) or \$36.55 (renewals) above your regular annual registration fee with proceeds going to Oklahoma's Wildlife Diversity Program. The forms are available at local tag agencies, or online at tinyurl.com/WildTags.



Top-quality, American-made caps display the Habitat Donor Patch of your choice, which designates you as a contributor to the Department's Land Acquisition Fund. Wearing this hat means you care about future generations and the great hunting and fishing tradition. Specify hat style on order form. — \$20



Oklahoma Wildlife Management Area Atlas

This updated edition has topographical maps of Wildlife Management Areas and now includes Department-owned fishing lakes across Oklahoma. At almost 100 pages, the atlas presents maps showing where to access areas, adds lands that have been acquired since 2010, and shows special features at each area such as parking sites,

camping areas and food plots.

Your atlas purchase comes with a one-year subscription to the award-winning "Outdoor Oklahoma" magazine. — \$25







GIVE THE GIFT THAT KEEPS ON GIVING ALL YEAR LONG!

"Outdoor Oklahoma" Magazine

Start enjoying a full year (six big issues) of hunting, fishing, natural history, camping and much more when you subscribe to "Outdoor Oklahoma" magazine or give as a gift!

1 year — \$10, 2 years — \$18, 3 years — \$25

For bill-me-later orders for the magazine, call (800) 777-0019.

Order online at license.GoOutdoorsOklahoma.com, then click "Shop."

OKLAHOMA'S Watchable Wildlife

REDFIN DARTER

BY BROOKLYN BLOOMFIELD, INFORMATION INTERN

The redfin darter (Etheostoma whipplei) is a small fish native to the south-central United States. It's found in southwest Missouri, northern Arkansas, southeast Kansas and eastern Oklahoma. They are classified as members of the perch family, or Percidae, and also as a nongame animal. Nongame means the redfin darter is not fished for food or sport, and is not listed as threatened or endangered in Oklahoma.

The darter family of small fish gets its name from the way these fish dart around rocks and other obstacles in their habitats. They tend to stay in rocky pools or headwaters of creeks and small rivers. It is common to see them in the current-swept vegetation within each of these habitats.

This fish has been called the hummingbird of the fish world because of the vibrant reds and blues seen on males during breeding season.

The largest populations of redfin darters have been observed in small, clear, rocky streams. They spawn in mid-March to mid-April, and the females are capable of producing 30 to 200 eggs every spring. While little is known about the life history of the redfin darter, researchers speculate they eat aquatic insects similar to other fishes.

The redfin darter is very sensitive to pollution levels. They thrive in highly oxygenated water, so if carbon dioxide levels rise to critical levels, they begin to perish. This darter is not listed as endangered in Oklahoma but is listed as endangered in Missouri. Some of the reasons

for the redfin darter's decline include the construction of dams that restrict their habitats, improper sand or gravel removal, pesticide runoff from agricultural areas, and livestock waste.

An adult redfin darter can range from 1.75 to 3 inches long. This fish has been called the humming-bird of the fish world because of the vibrant reds and blues seen on males during breeding season. During

the breeding season, males are characterized by light-brown scales covered in red and blue spots spanning their entire body. Their dorsal fins are colored with a bright orange-red stripe in the center, along with a blue stripe bordering the outer edge of the fin. The tail fin is similar to

the dorsal fin, but has orange spots at its base.

The females and juveniles are not as colorful. They are a grayish color with yellow spots on their sides, and a duller red and blue stripe on their dorsal fin and tail fin.

Overall, this unique fish is one to look for when you find yourself on a stream in eastern Oklahoma. Their exciting colors make them stand out against their rocky habitats, and their quick, darting movements make them seem like a blur of color. Just make sure to look for them in spring if you want to experience the diverse colors of this darter.

48 WATCHABLE WILDLIFE



Days getting shorter, air getting crisper, leaves beginning to turn — the time is near for deer hunters to prepare for the archery opener Oct. 1. Find out how archery hunters fared last season in the 2019-20 Big Game Report, inside this issue of Outdoor Oklahoma.



A PUBLICATION OF THE DEPARTMENT OF WILDLIFE CONSERVATION

