

# **Oaks and Prairies Wildlifer**

A newsletter for landowners in the Post Oak Savannah and Coastal Prairies Regions of Texas



### July2020

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# **District Field Notes**

### **BY DAVID FORRESTER**

Well, the Coronavirus is still with us and in fact increasing in much of the state as I write this. We started to open back up, but it looks like things may stall or even start shutting down again. The Governor just closed bars again and took other restrictive actions. Looks like this is going to continue over the summer and into the fall. Hopefully, you and yours are safe and practicing good social distancing techniques.

Biologists are working. We have just started landowner site visits again. We are practicing good social distancing techniques, of course. They also continue to consult with folks about wildlife related issues via telephone. If you need to talk to your local biologist, call the office number or use email. They will get with you as soon as they can. If it needs to be a in person visit, he or she will get you scheduled as soon as they can. We will practice social distancing, wear masks, etc. We won't be able to pile into a truck or UTV like before, but we can certainly "kick some weeds" and visit across a tailgate.

Biologists are in the middle of dove trapping. Both mourning dove and white-winged dove are trapped and banded this time of year. The band data collected on mourning doves during dove season gives us a good estimate of population numbers and is used to combat any restrictions that the U. S. Fish and Wildlife Service might want to put on dove hunting, whether it be season lengths or bag limits. Additionally, biologists are getting ready to begin running Deer Management Unit (DMU) spotlight lines. Spotlighting begins the end of July and runs into September. We're excited to see what sort of numbers we get back on these DMU lines. As many of you know, we implemented a four-day doe season last year around Thanksgiving. Look for the article in this newsletter for more specific information on harvest numbers.

For the most part, our spring was very good with plenty of rain. June has gotten dry, but we started getting some relieving rains toward the latter part of June. Habitat conditions overall are good, and wildlife has benefited. It looks like the fawn crop is a bumper one.

#### State of the District, continued

Hopefully, you and all your people are safe and healthy. Hopefully, we can continue social distancing for a bit more and then start getting back to normal. Hopefully, we're not feeling the impacts of this pandemic for years to come. Regardless, we will get through this at some point, and be stronger having done so. At that point, when it is safe to do so, I urge you and yours to get out and enjoy the wildlife and habitat on your piece of Texas.





David Forrester is the District 7 Leader in La Grange. He has been with TPWD since 2001 when he started his career as the TPWD wildlife biologist for Fort Bend and Wharton counties. David has a Bachelor of Science in Agricultural Economics and a Bachelor of Science in Wildlife and Fisheries Sciences, both from Texas A&M University, and a Master of Science in Range and Wildlife Management from Texas A&M University-Kingsville.

## 2019-2020 Deer Harvest Breakdown—District 7

#### WRITTEN BY BOBBY EICHLER

You may recall that a partial summary of the District 7 antlerless harvest was included in the January 2020 Oaks and Prairies Wildlifer. Since then, with the help of Managed Lands Deer (MLD) cooperators and the Land Management System (LMA), a more comprehensive summary can be made from the overall antlerless harvest across much of the district. Managed Lands Deer cooperators had until April 1 to turn in harvest numbers for their properties which received MLD Permits.

Before this past season's new regulation requiring mandatory reporting of antlerless deer on non-MLD properties, Texas Parks and Wildlife (TPWD) biologists did not have accurate whitetail antlerless harvest on the county level. Harvest data for the most part was only collected from MLD cooperators, which covers just a portion of overall county acreage. Due to the new regulation, biologists now have a much clearer picture of the overall antlerless harvest by season in their areas of responsibility. Along with annual survey data, District 7 biologists are now better informed and equipped to manage the local deer populations with the addition of mandatory reporting. This new regulation was directly tied to the new four-day antlerless season which covers 21 counties in our part of the state and was overwhelmingly supported by constituents during the public hearing process concerning the antlerless season.

First, let's look at the overall antlerless harvest on a county-by-county basis (Tables 1 and 2). Both tables are
comprised from both mandatory reporting which effects hunters following county regulations, as well as data
turned into the LMA system by MLD permit holders. Data have been sorted to include only harvest which was on

County	Archery	Archery and Youth-Only Weekend	4 Day Season	General**	Muzzleloader and Late Season Youth	Harvest Option MLD	Conservation Option MLD	Total Har- vest	MLD Portion of Harvest	County Regulation Portion of Harvest
Austin	20	4	72	2	0	4	183	285	66%	34%
Bastrop	49	11	233	1	16	63	186	559	.45%	55%
Caldwell	29	9	163	1	6	35	345	588	65%	35%
Colorado	52	15	177	0	14	12	1170	1440	82%	18%
Dewitt	54	13	374	1	13	140	1641	2236	80%	20%
Fayette	62	20	306	1	28	41	744	1202	65%	35%
Goliad	24	7	141	1	4	104	1124	1405*		
Gonzales	28	7	209	0	11	134	500	889	71%	29%
Guadalupe	34	7	164	1	4	19	476	705	70%	30%
tackson	19	4	31	0	4	22	536	616*		
Lavaca	74	15	198	3	12	17	1409	1728	83%	17%
Lee	63	17	206	0	11	71	289	657	55%	45%
Victoria	8	3	87	1	2	85	1458	1644*		
Waller	7	3	18	0	2	54	18	102	71%	29%
Washington	23	8	133	0	5	55	144	368	54%	46%
Wharton	10	3	25	0	2	43	294	377*		
<b>fotal</b>	556	146	2537	12	134	899	10517	14801	77%	23%

during 30-day antlerless season south of Hwy 59.

\* Reported antierless harvest during the general rifle season but outside of the 4-day antierless season (illegal).

#### 2019-2020 Deer Harvest Breakdown—District 7, continued

low-fence properties. Please note, for counties that have Highway 59 running through them (Goliad, Jackson, Victoria, and Wharton), portions of those counties (south of Hwy 59) were not under the mandatory reporting regulation; because of this, antlerless deer harvested south of Hwy 59 during the general antlerless season are not included in overall county numbers.

From Table 1, overall antlerless harvest by county ranged anywhere from a low of 102 upward to 2200+. The wide range in harvest can be attributed to several factors; however, deer densities and hunting pressure are likely the largest two factors. Generally speaking, and not surprising, counties with higher deer densities had higher numbers of deer harvested. For comparison, deer density data was previously provided in the Fall 2019 Oak and Prairie Wildlifer. Within our district, the counties of Dewitt, Colorado, Guadalupe, and Lavaca generally have the highest deer densities with the remaining counties varying with healthy huntable populations. Table 1 also shows the overall harvest of antlerless deer by breaking down the portion of harvest attributed to MLD properties and the portion attributed to properties following the county regulations. Across all counties, except Bastrop, the majority of the antlerless harvest was on MLD cooperating properties. The MLD portion of the overall antlerless harvest exceeded 70% in several counties; within these counties Wildlife Management Associations have a large presence across the landscape.

Looking at Table 2, one can determine to what intensity antlerless harvest occurred across the individual county. For this table, the previously mentioned counties effected by Hwy 59 have been removed so that data are not misleading. The important take-away from this table is that in the counties with lower deer densities, such as

Austin and Washington, the overall antlerless harvest remained very conservative. When breaking the data down even further and specifically looking at the four-day antlerless season in Austin and Washington counties, the four-day season only added 1 additional harvested doe per 5,625 and 2,950 acres, respectively.

Aside from deer harvest only, the mandatory reporting showed some interesting aspects to overall hunting trends by season. Archers, as expected had an overall minimal take on antlerless deer during the archery only seasons. Not having previous year's harvest data, some assumptions may be drawn about archery hunters, but they are strictly assumptions. In prior years across these counties, if a non-MLD hunter wanted to harvest an antlerless deer, the only option was archery season. With the new antlerless days, archers may now focus even more of their attention in October to buck harvest only since they can now take advantage of

Table 2: Acres per harvested antlerless deer, by							
county.							
			Acres per				
	Total		Harvested				
	County	Antlerless	Antlerless				
County	Acreage	Deer Harvest	Deer				
Austin	405,044	285	1421				
Bastrop	567,572	559	1015				
Caldwell	343,937	588	585				
Colorado	603,325	1440	419				
Dewitt	567,176	2236	254				
Fayette	593,879	1202	494				
Gonzales	669,698	889	753				
Guadalupe	447,736	705	635				
Lavaca	578,737	1728	335				
Lee	397,231	657	605				
Waller	331,123	102	3246				
Washington	392,366	368	1066				

Table 2: Acres per harvested antierless deer, by	
county.	

#### 2019-2020 Deer Harvest Breakdown—District 7, continued

harvesting an antlerless deer during the additional four-day Thanksgiving season, by archery or gun. The new antlerless season also opened up the way for muzzleloaders to harvest an antlerless deer during the January muzzleloader season; previously a permit was required during this period. According to the data, muzzleloader hunters also had minimal impact on the resource. Just to be fair, from the mandatory reporting and the method data are collected, youth hunters during the youth seasons cannot be deciphered between the archers and the muzzleloader hunters.

In summary the additional doe days provided more hunting opportunity in the Oaks and Prairie counties with minimal impact on the deer population. Hopefully you will find some value in this data. Our intent with the Oak and Prairie Wildlifer will be to continue to present as much data as we can concerning annual deer census surveys and annual deer harvest summaries. As always, we encourage you to continue collecting and reporting good records. Although data collection and processing may at times be mind-numbingly boring, it is critical to quality deer management.



Bobby Eichler is the Technical Guidance Biologist for the Oak Prairie District. He has Bachelor and Master of Science degrees in Forestry both with emphasis in Game Management, from Stephen F. Austin State University. A native of Giddings, Bobby started his TPWD career in East Texas before moving to La Grange in 2007.

From time-to-time, District 7 staff receive photos from the public that capture wildlife that may be unique or rare. This racoon photo was taken in Fayette county between La Grange and Flatonia. The racoon is not a true albino, but rather leucistic, a condition resulting in a partial lack of normal pigmentation. Photo©Francene Mason



# **Cowbirds are Natives Too**

#### WRITTEN BY SCOTT SUMMERS

Wildlife biologists often argue over trending and relatively new wildlife information. One thing they do not argue over is the importance of preserving/ conserving Earth's biodiversity.

Among the biodiversity they encourage people to preserve is birds. That is, native birds. Wildlife experts will tell you introduced birds such as European starlings and house sparrows can be bad, mainly because they aggressively outcompete and displace many natives including woodpeckers and bluebirds of their nest sites.

What about natives such as blackbirds and cowbirds? Like all natives, they are protected but do not receive the same attention or concern as more charismatic species such as bald eagles and waterfowl.

Enter the brown-headed cowbird. This species is native and is an obligate brood parasite -- i.e., it requires other species to rear its own. Cowbirds are known to lay their eggs in the nests of some 220 species of North American songbirds. Biologists believe cowbirds may have adopted this reproductive strategy because once upon a time long ago cowbirds foraged on seeds and insects stirred up by large wild migrating grazing animals they





Top: Male and female cowbirds perched high in a tree exhibit courtship. Bottom: Male and female cowbirds perched on a barbed wire fence constructed to hold beef cattle in Texas. Photo©Gil Eckrich

followed such as bison. Therefore there was not enough time to pair, hold territory, nest, and rear young before the grazers moved on.

Upon European settlement of North America, cowbirds substituted fenced-in domestic grazing beef cattle for the extirpated bison and became more sedentary. But they did not stop their parasitism reproduction strategy.

Cowbirds adjusted so well to beef cattle that by the 1980s bird biologists believed several species of North American songbirds were being driven to near extinction due to excessive cowbird nest parasitism which could exceed 90% of nests in some species. One of those species included the black-capped vireo within Texas.

Populations of host species plummeted as the host parents adopted the cowbird nestling which hatched quicker and outcompeted the parents' own offspring for food, usually starving the host's nestlings to death.

The Endangered Species Act of 1973 was signed into law by the late and former President Richard Nixon. This powerful conservation law enabled federal agencies to provide landowners funding for conservation to prevent extinctions and begin recovery of species.

#### Cowbirds are Natives Too, continued

In 1972 the first-of-its-kind cowbird trapping program for the soon-to-be endangered Kirtland's warbler in Michigan started. Almost all Kirtland's warbler nests were parasitized by cowbirds. With the help of cowbird trapping the species recovered and was recently delisted.

Trapping began in Texas in 1989, two years after the black-capped vireo was listed as endangered, primarily due to cowbird parasitism.

Fast forward to 2018: The black-capped vireo within Texas (smaller populations within Mexico and Oklahoma) also recovered and was delisted in part due to effective cowbird trapping programs.



Cowbird trapper explains the reason cowbirds are trapped to a group of Texas Master Naturalist students. Photo©Scott Summers

Other species that have recovered or are in recovery after cowbird trapping are least Bell's vireo, and Southwestern willow flycatcher in the southwestern U.S.

Despite the full recovery of targeted species, wildlife experts are continuing to monitor them. The current plan for post-delisting monitoring of black-capped vireos is expected to go into 2030. During the time, biologists will measure the success of cowbird trapping or lack thereof.

Speculation of a recent decline in cowbirds locally is being fueled by a direct correlation of more private landowners in Texas opting for wildlife management plans rather than livestock production and other agriculture management plans.

Bird populations of all natives are being monitored across the U.S. including cowbirds. Unfortunately, per ornithology groups such as Cornell and Audubon, data suggest many species are in decline, including cowbirds. Though cowbirds are doing well in many local areas, they too can decline, and trapping programs should only be initiated if there are serious problems with too many cowbirds and not enough of their sensitive hosts.

The goal of cowbird trapping programs was never to eliminate cowbirds, just remove enough in problem areas so that less common birds could coexist. Thus some benefits from cowbirds in moderation can include weeding out weaker individuals of a host. Regardless of one's viewpoint on having any cowbirds or not, these birds contribute to the diversity of our local and native avifauna.



Scott Summers is a wildlife biologist who works in central Texas on public and private lands. He has 25 years experience working to improve bird habitat in Texas. Scott does not have a favorite bird, but he has spent a large part of his career trapping cowbirds to benefit songbirds in Texas. Scott can be reached at his email at <u>bhcomale@gmail.com</u>.

# Making the Most of Your Offseason Preparation

### WRITTEN BY CLINTON FAAS

It's hot! That seems to be the resounding theme heard throughout the summer, especially in Texas. During these dog days of summer people are thinking about things like fishing, being in the water, vacations, and A/C. Something that rarely comes up on that list is hunting, even less so are preparations for the upcoming hunting season. Many people tend to put off their pre-season preparations until hunting season is upon them. Some may even go into the field without having fired a shot since the last season. Think for a second about a baseball player stepping up to the plate without ever taking batting practice or stepping up to the tee box on a golf course without ever visiting the driving range. Just as practice swings and warmups are preparations we do in other activities without thought, so should offseason preparations be for hunting. They say "practice makes perfect," but in the world of shooting it is probably more accurate to say "practice makes proficient."

There are many reasons to practice when it comes to shooting and hunting. The first, and possibly most obvious, is that it increases your shooting ability. Repetition means that over time you will be able to hone your skills and muscle life of your firearms. memory to put more shots where you are aiming more often. Practice also allows Photo@Clinton Faas, TPWD you to become more familiar with your weapon. Whether it's a new rifle or a



Proper cleaning can both improve accuracy and extend the

shotgun that's been your go-to for years, knowing how it shoots and all its intricacies and parts will help when you take the field. The offseason is also a great time to correct any bad habits. Everyone develops them over time and a range is an ideal place to begin to "fix" these issues. By practicing and instilling good habits instead, when that critical time arises, you will be able to make the shot without having to think about the operation of your weapon. Below are some helpful tips for your offseason preparations. There are many other things to consider as you prepare for the upcoming season, but hopefully this will get you thinking about your hunt sooner than the week before you leave.

#### Archery

- Visit a bow shop or retune your bow yourself if you have the ability. Make sure it is mechanically sound, everything is tight, and your string isn't frayed.
- Make sure you practice with your broadheads. With a properly tuned bow they should be hitting where your field points are, but you want to know exactly where you will be hitting during your hunt.
- Set targets at varying distances and practice estimating range with and without your range finder. In a perfect world the deer stops exactly where you want it to in your shooting lane at 20 yards; hunting though is rarely perfect. Shooting a 3D course can also help with your distance estimation and adds a sense of realism to your practice session.
- Practice shooting further than you think you will during hunting. Doing this will make those closer shots seem that much more routine. While you are practicing at extending your shot length, figure out the max distance to which you are proficient. Continued on page 9

#### Making the Most of Your Offseason Preparation, continued

Set that as your limit while hunting and make yourself stick to it. It is better to pass on a shot than to go beyond your comfort zone and risk losing a wounded animal.

- Shoot from various positions that mimic your hunting situation: if you hunt from a tree that may mean shooting in full hunting clothes and tree stand harness; if you hunt from the ground, practice shooting from a seated position or through the window of your blind.
- Shoot a few arrows several times a week. Shooting too much in one session can cause fatigue which may lead to bad habits. Shooting short sessions more often will help to build your strength and have you ready for the season in no time.

#### <u>Rifle</u>

- Thoroughly clean the rifle inside and out. Not only will this extend the life of the firearm, it will also improve accuracy.
- Check to make sure it is mechanically sound and look for loose screws or bolts on the optics and rifle. Something as simple as a loose screw on a scope mount can be the cause of extreme frustration when trying to get a rifle dialed in.
- Get in range time, meaning, take the time to shoot. Focus on squeezing the trigger and let the shot surprise you. The more you can make trigger and breathing control second nature, the more likely you will be to gently squeeze when the excitement of the moment is happening on your hunt.
- Hunting ammo can be expensive so consider practicing with a rifle that costs less per round. This will allow you to take more time shooting without breaking the bank.
- Identify different types of ammo that penetrate and expand properly for the type of game you are pursuing. When you decide what type of ammo you want, shoot different brands and bullet weights to find what performs best out of your rifle.
- Use the gear you will use in the field. Do you hunt out of a blind, shoot off a bipod or sticks, or occasionally use a tree as a rest from standing position? Practice that way too. If the only way you ever shoot is from a steady bench off sandbags, your deer blind window is going to seem quite unsteady.
- Learn your limitations. People tend to overestimate their ability to shoot at far distances, especially with modern hunting rifles and ammo. Just because your rifle is capable of shooting at distances of 300 or 600 or 800 yards, are you? There are many, many variables that go into long-range shooting and, unless you have proven your proficiency at those ranges, you shouldn't risk a shot because you *think* you can make it.

#### <u>Shotgun</u>

• Thoroughly clean, inside and out, and make sure it is mechanically sound. There are varying schools of thought on how much a dirty barrel affects the pattern on a shotgun, but it is a good practice to clean your gun thoroughly, especially if you shoot a lot or the gun gets wet.

#### Making the Most of Your Offseason Preparation, continued

- Make sure it fits you properly. Although this may be something you personally know nothing about, most gun shops should be able to help you make sure your gun has the proper fit. A properly fit shotgun helps to ensure that the gun is shooting where you are looking.
- Shoot paper. You may be thinking, "Paper? This isn't a rifle." You are correct, but just like a rifle, putting your shot on paper helps determine how your shotgun is performing in the field. Try different shells, distances, and chokes. Pay attention to where your point of impact is and how many pellets you have on target. To do this, you can count all the your shotgun skill keen for the upcoming pellets in a 30-inch circle at different distances with different



Shooting sporting clays is a great way to keep season. Photo©Megan McElya, Bar MC Media

chokes and loads; the results may surprise you. The most effective patterns will put 70-80% of the pellets within that 30-inch circle at whatever range you are testing.

- Shoot clay targets. Although any time spent shooting helps, you may find that courses like sporting clays offer realistic targets that are similar to what you will encounter in the field.
- When you spend time practicing, learn to focus! Specifically focus on the bird or clay, not your bead. Although the phrase "aim small, miss small" doesn't completely apply here, try to laser focus on a specific spot on your target like the leading edge of the clay ("aiming" with a shotgun often leads to slowed swings and shooting behind targets). By training yourself to focus on the target and not your gun, you will begin to learn to trust your subconscious measurements and hit more targets. This will also help avoid flock shooting when you have to choose from several birds on your hunt.
- Practice judging distance and learn how far you can shoot. Like shooting a rifle, many people tend to overestimate their ability to shoot a shotgun at farther distances. As your hit percentage decreases with these shots you will also begin to see wounding loss increase.

With any shooting, and any preparations, the only way to get better is practice, practice, practice. When it comes to hunting there is no one specific way that fits all scenarios, but anything is better than nothing. Remember to practice like you hunt and consider shooting with someone that is more experienced than you. Having an additional person around will help you continue to hone your abilities and pick up on any mistakes you may be making. If you don't have someone to shoot with, consider filming yourself to see if you can pick up on anything that could use improvement. Ultimately, we owe it to ourselves and the game we pursue to put in the time needed to make clean, ethical shots.



Clint Faas is the District 7 biologist for Wharton and Fort Bend Counties. A Wharton County native, he graduated from Texas A&M University in 2005 with a B.S. in Wildlife Ecology and Management and a minor in Rangeland Ecology and Management. He went on to obtain a M.S. in Wildlife Ecology from Texas State University in 2008. Post-graduation, and prior to his hire in 2017, Faas worked as a private sector biologist and Director of Conservation Programs for a statewide non-profit.

# Public Hunting Lands, An Option for Texas Hunters

#### WRITTEN BY TODD PILCIK

Let's face it, it's hot. In the summer months, not many folks have hunting season on their minds, but this is a great time of year to begin planning fall hunting opportunities. The Texas Parks and Wildlife Department (TPWD) public hunting program offers access to over 1 million acres of public hunting lands across the state though a variety of permits. Each type of permit is tailored to address specific preferences of sportsmen while assuring proper management of the wildlife resources.

A \$48 Annual Public Hunting (APH) Permit provides inexpensive, family-oriented access to public hunting lands located throughout the state for various types of hunting and other outdoor recreational activities. The APH permit allows you to choose from multiple areas to hunt for a variety of legal species. You can select the time and place to hunt and you can utilize the areas as many times as you want. Hunts available under the APH permit

include migratory birds, quail, deer, feral hog, and other small game. Legal game, hunting methods, dates, and rules and regulations vary on different units. Upon purchasing the APH permit, a booklet of maps will be mailed to you and will indicate areas available for hunting and any special regulations such as registration requirements, legal game, hours/days of operation, legal means and methods, and other permissible or restricted activities. You may view these areas before purchase by visiting the Texas Parks and Wildlife website. Through the My Texas Hunt Harvest app, you can download maps and information to your mobile device for use in the field.

Another public hunting opportunity is through the TPWD drawn hunts. In this system, applicants are selected by a lottery-type drawing. These hunts, for the most part, are on state and federal

lands that may or may not fall under the APH permit and are structured for specific dates, times, and legal game. Hunt categories include alligator, exotics, feral hog, white-tailed deer (both either-sex and antlerless) javelina, mule deer, pronghorn and spring turkey. Application for the drawn hunts is online only. Each adult applicant 17 years of age or older is charged an application fee of \$3 per application with most categories allowing up to 4 applicants per group. Other more specialized hunts, such as Private Lands Hunts and Guided Hunt Packages, require a \$10 application fee per applicant. Selected adult applicants are charged a permit fee which varies from \$80 to \$130 depending on the duration of the hunt. Applicants can apply for as many hunts in each category as they wish but may only apply one time for a particular category on a specific site. Unsuccessful applicants are awarded loyalty points in the categories entered thus increasing the odds of being drawn in future years.

E-postcard hunts are also available through the online public hunting system. E-postcard hunts are the electronic version of a mail-in postcard submitted for select categories which may or may not be available through the general draw hunt system. Continued on page 12





Top: White-tailed deer harvested on the Mad Island Wildlife Management Area (WMA). Photo©Lang Alford, TPWD. Bottom: Youth hunt harvest on the Hurst WMA. Photo©Owen Best

#### Public Hunting Lands, An Option for Texas Hunters, continued

There is no charge to apply for e-postcard hunts. However, all applicants in a group must purchase the APH permit prior to application.

The TPWD public hunting system also offers a variety of youth hunting opportunities through the regular drawing system and e-postcard categories. There is no fee for applying for the youth hunts and all youth must be accompanied by an adult supervisor. There are Youth Only hunts for alligator, deer, turkey, javelina, and exotics. Only 3 applications may be submitted for any Youth Hunt category

So, if you are looking for a change of scenery or just want to explore different regions of Texas and pursue game that you would not normally have the opportunity to chase, take some time to visit the Texas Parks and Wildlife public hunting site. The new 2020-2021 draw hunts should be available mid-July. Annual Public Hunting Permits, available wherever licenses are sold, go on sale August 15<sup>th</sup>.



https://tpwd.texas.gov/huntwild/hunt/public/



Above: Feral hog harvest at the Justin Hurst Wildlife Management Area (WMA). Photo©Owen Best, TPWD. Top right and Bottom right: Duck hunting on the Mad Island WMA. Photo©Lang Alford, TPWD





Todd Pilcik is the Private Lands Biologist for Matagorda and Brazoria counties. He received his Bachelor of Science degree in 1994 and pursued his Masters degree at Southwest Texas State University in San Marcos. Todd was hired in August of 1994. He worked with the migratory program until 1999 when he accepted a biologist position in the Texas hill country covering Lampasas, Coryell and Bell counties. In 2002, he transferred to the Texas coast and is currently stationed in Bay City.

# **Cattle Grazing and White-tailed Deer**

#### WRITTEN BY CLINTON FAAS

Cattle grazing in Texas has roots that can be traced back hundreds of years. Still an integral part of many ranches, throughout our area you can find varying degrees of grazing intensity and management strategies. But how do these grazing systems impact our wildlife? The answer to that question lies in the particular grazing strategies and environmental conditions on a particular property in a given year. Thinking specifically of white-tailed deer (Odocoileus virginianus) there can be both positives and negatives associated with grazing.



Grazing can be used as a tool for wildlife management, but heavy grazing can result in less habitat available for wildlife. Photo©Clinton Faas, TPWD

To understand these grazing effects, we first must look back at our area before European man. Much of our area was relatively open and during these times most of Texas received periodic grazing by large herds of bison (*Bison bison*). When these herds moved through, they would consume large amounts of vegetation and then move on. As the land became settled several things began to change and many of our grazers were killed off. Whether in the name of food, sport, or the railroad, the population of bison began to decline. As cattle started to make their way into the state so did the need for fences to keep them contained. This resulted in many places seeing overgrazing, woody plant encroachment, and a suppression of the natural fire regime; but that is the topic of another article.

When it comes to modern-day grazing, landowners can do their part to help manage their wildlife by using cattle as a tool. To do this, one must first explore the way deer and cattle interact and look at some of the pros and cons of grazing for wildlife habitat. Habitat can be described as the physical area where an organism resides under natural conditions. It must meet all the needs of the species and is made up of food, shelter, water, and space. Although cattle can have impacts on all 4, arguably the most likely areas to see effects will be in food, shelter, and space. In evaluating the components of habitat for deer, understanding what limiting factors exist is critical. A limiting factor is any living or non-living factor that restricts the number of organisms in an ecosystem. For example, if a group of deer are put in an environment with more than enough food, water, and space to interact and move around, but there is no shelter to protect them from the elements and predators, then shelter would be the limiting factor. Depending on its use, grazing can either help increase or take away these limiting factors from an environment.

Food is perhaps the most obvious of the interactions between cattle and deer. With a simple observation, it may appear that they are each indiscriminately walking around eating whatever they can. However, the diets and food preferences of deer and cattle differ quite a bit. Although there is overlap, cattle prefer, and can digest, much more grass than deer: 70-80% of their diet on average versus less than 15% for deer. Deer on the other hand prefer the more palatable and digestible forbs and browse.

#### Cattle Grazing and White-tailed Deer, continued

Although consumption varies depending on weather patterns and time of year, deer may consume 30-60% forbs with cattle consuming only 10-25%. Keeping this difference in mind, one must consider the total consumption of each animal on a daily basis. Considering one cow eats approximately 26 pounds of dry forage per day, that would equate to 2.6 pounds of forbs on the low end. Comparatively, a 125-pound white-tailed deer consuming 3% of its body weight would ingest 3.75 pounds of dry matter per day. On the higher end of the range, 60% of this diet would only be 2.25 pounds of forbs per day. In doing the math, it is obvious that, even though there are differences in dietary preferences, cattle can be direct competitors of deer for resources. However, this competition is mostly a concern only when food supplies are limited and plant diversity is low, often as a result of too many animals, either livestock or deer. As will be discussed later, proper stocking rates and grazing management should allow for cattle to graze the landscape while still leaving adequate forage available for wildlife.

In addition to food, shelter is a critical component of habitat. For different species, shelter requirements can vary greatly, but for deer it can be broken down into 2 important categories: shelter from predators and shelter from the elements. Thermal cover provides deer the ability to get out of the heat in the summer and cold wind during the winter. Although heavy cattle grazing may provide a nice, clean, shady spot for deer to lay under a tree, the removal of the lower vegetation from trees will likely prove to be a poor break from the cold winter winds. Moderate grazing and a diverse habitat can provide the best of both types of thermal cover for deer. Predator avoidance is important for a deer population. That is not to say that even in the best habitat there will not be mortality loss to predators, there will, but providing adequate cover for raising fawns and allowing animals a chance to escape will decrease mortality and result in a more thriving population. Fawning cover is typically grass or other low vegetation that can hide a fawn. As the first line of defense, the ability to lie motionless and relatively scent-free proves to be a successful tactic with adequate vegetation. Too little vegetation reduces the effectiveness of the hidden fawn due to an increase in visibility. As an adult, deer need the ability to be out feeding or bedding without the constant threat of being seen by a predator. If they are detected, or otherwise need to retreat, woody or grass cover provides the opportunity to evade predator by putting a visual obstruction between the two animals.

Grazed light with Grazed heavy: A heavily grazed pasture (right) compared to a lightly grazed pasture (left) shows the effects of improper grazing on wildlife habitat.



Continued on page 15

#### Cattle Grazing and White-tailed Deer, continued

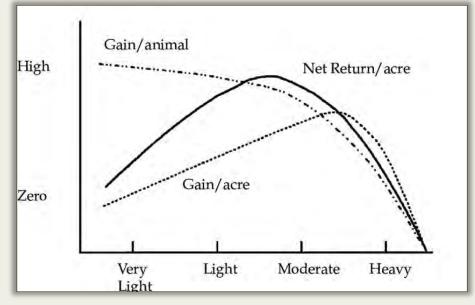
Space is probably the least thought of component in the habitat equation. It has several meanings, both referring to the physical area animals inhabit and the distribution of resources within that area. To live in a large area, animals need to have all components of habitat scattered throughout their core area. This concept, called interspersion, assures that animals have adequate resources across the landscape enabling them to use more of the space available. Picture, if you will, a perfect square that represents a particular property. Divide that square into 4 equal sections representing the 4 components of habitat. In this oversimplified scenario, the property does have every component needed for habitat, but the useable area is very small, directly in the center where they all come together. In a real-world scenario you are much more likely to have resources scattered across the landscape, but improper grazing can easily remove one of these components rendering that space less or completely unusable. The presence of cattle also has the potential to displace deer from an area through interference competition. Although many examples can be found showing deer and cattle commingling, too heavy of stocking rates for too long has the potential to push deer out of their desired habitat.

There are, however, many benefits to having cattle and grazing. By physically having cattle on a property and the fact that they move around throughout the day, one will begin to see small amounts of soil and plant disturbance from hoof action. This hoof action results in a trampling of plant litter and exposing some areas to sunlight which creates small areas of disturbance. In soft soil, these disturbed areas may also create shallow depressions that are able to collect and hold water. All this combined means an increase in forb production and plant diversity. The consumption of vegetation by cattle has benefits as well. Although it may seem counterintuitive based on the previous competition discussion, removing vegetation through grazing can also benefit a deer herd. Decreased grass density and the removal of residual dried plant matter means less competition for forb growth. With certain forbs and browse, the removal of part, or all, of the plant encourages regrowth or re-sprouting from the original plant. This results in fresh new growth that is sought out by deer because of its higher nutritional value and palatability. As with soil disturbance from hoof action these effects of grazing can also result in increased forb production and plant diversity. In the world of deer, this translates to more food and generally more productive land with healthier deer herds.

For these benefits to be realized however, there are several things to consider when planning a grazing system. It is of utmost importance to maintain proper stocking rates. Too little grazing may result in the cattle only selecting the top-quality plants and leaving the less desirable alone; too heavy grazing can have any number of consequences outlined above. To determine this stocking rate you will need to know how much vegetation is available to be grazed by taking into account your standing crop (pounds per acre of vegetation) and the grazeable acres on your property; it is not likely that 100% of the property is accessible by cattle due to slope, water, brush, or other features. Once you know how many cows you can graze and for how long, you will then need to continue to monitor range conditions and move the cattle accordingly. When it is time to rotate, repeat the process. But there is more to consider than just the math involved. For instance, a 100-acre pasture with 2000 lbs/acre of available forage comes out to 200,000 lbs of forage. Considering an average cow consumes 26 lbs/day you could get almost 7,700 grazing days (roughly the equivalent of 21 cows for an entire year). However, that assumes the cattle are consuming 100% of the available forage, which leaves very little for wildlife use. For the health of the vegetation and overall habitat it is generally recommended to use the "take half, leave half" approach. With this, you assume 50% is removed and 50% is left as standing crop. Of that 50% that is removed, not all of it will be available as actual forage for cattle. Some will be lost to insects, some to trampling loss (hoof action), some to defecation, and some that the cattle drop after they have pulled it free from the plant.

#### Cattle Grazing and White-tailed Deer, continued

Data suggests as much as half of the 50% "consumed" will be lost, leaving 25% of the original standing crop available to the cattle. Revisiting the math from earlier, a quarter of the available 200,000 lbs means there is actually 50,000 lbs available to be consumed by cattle giving the same 21 cows roughly 91 days of grazing rather than the entire 365. While this may seem like a drastic change in numbers, the difference is from a shift in focus from "what is the maximum number of cows can we graze here" to "how many cows can this habitat support." The latter focuses on the health of the



Proper stocking rates will not only benefit wildlife habitat but also help to increase the financial return on your herd. Photo©extension.okstate.edu.

habitat and the wildlife using that area as well. In addition, more cows do not always equal more money. Starting at zero animals, the net return per acre will increase as stocking rates increase, to a point. Continuing to increase stocking rates mean lower gains per animal and at some density along the way you will reach the point of diminishing returns. This point marks the beginning of habitat degradation, increased input costs, and less return on your investment. Staying below this threshold both works to maintain the return potential on a herd while ensuring the habitat remain healthy for wildlife.

Ultimately, a grazing system must be chosen that works for the property and for the landowner's resources. If a land manager thinks of cattle as mimicking the original grazers on the landscape, that person can begin to use those cattle as a tool for wildlife management rather than something that degrades habitat. Rest periods are good for rangeland health and good for the wildlife that inhabit them. Although you cannot optimize both cattle and wildlife production on the same property, steps can be made to use cattle and proper grazing systems to manage wildlife habitat while still maintaining a sound cattle operation.



Clint Faas is the District 7 biologist for Wharton and Fort Bend Counties. A Wharton County native, he graduated from Texas A&M University in 2005 with a B.S. in Wildlife Ecology and Management and a minor in Rangeland Ecology and Management. He went on to obtain a M.S. in Wildlife Ecology from Texas State University in 2008. Post-graduation, and prior to his hire in 2017, Faas worked as a private sector biologist and Director of Conservation Programs for a statewide non-profit.

# Species Spotlight: Black-tailed Jackrabbit (Lepus californicus)

WRITTEN BY SHANNON LAWRENCE

Many years ago, while working in Arizona, I was called to a residence for a nuisance wildlife call. The residence, also an at-home day care facility, was being plagued by a rabbit. I was intrigued by how this was a problem. I was led through the house to the window overlooking the backyard. A black-tailed jackrabbit (Lepus californicus) was resting in the shade of a plastic toddler slide and the children were not allowed to go outside. As I approached the backyard from the side of the house the jackrabbit took off, easily solving the immediate problem. I could hardly believe how someone could fear a jackrabbit in their yard, but it makes for a good "well, this one time..." story. I'll admit that jackrabbits don't quite have the aesthetic appeal of a cottontail. With ears roughly as long



Black-tailed jackrabbits have very long ears, a characteristic of hares. Photo©Trey Barron, TPWD

as their hindfoot and yellowish eyes, they certainly don't have the sweet bunny look of a cottontail.

If you are well versed in the differences between rabbits and hares, you will notice from the picture, that jackrabbits are actually hares because of their very large ears. Another attribute that distinguishes hares from rabbits is that young hares are born precocial, meaning they are ready to rock and roll once born. They have their eyes open and are active immediately after birth. It only takes them about a month before they can be on their own. Like other prey, jackrabbits have a very high reproductive rate to make up for being pursued by many predators (hawks, coyotes, foxes, bobcats, badgers). The breeding season in Texas is year-round. They can have up to six litters a year (average of 4) with each litter containing 1-8 young. Young jackrabbits, less than a year old, are called leverets. Like deer, the females are called does and the males are called bucks. Black-tailed jackrabbits are named for the color of the upper part of their tail. A black line runs the length of the top side of their tail, but it is white underneath and this part shows as they move quickly from danger. The white underside is also used to alert other jackrabbits of danger in the area. Jackrabbits use excellent vision, hearing, and speed to avoid predators. They can move up to 40mph in short bursts and use their powerful hind legs to jump 10 feet or more.

While jackrabbits are typically more of a desert dweller, they are found throughout most of Texas, except for the extreme eastern part of the state. They are often associated with open areas, including overgrazed pastures. In spring and summer they will eat lots of available green vegetation, switching to woody plants and dried vegetation as the environment becomes drier. They have two rows of incisors that they use to clip vegetation. In areas of high jackrabbit numbers, livestock stocking rates may need to be adjusted because of how much vegetation they consume. Jackrabbits also use another technique for getting enough nutrition; they are coprophagic.

#### **Oaks and Prairies Wildlifer**

#### Spotlight Species: Black-tailed Jackrabbit (Lepus californicus), continued

This means they eat their scat. The first round of scat produced is soft and is a good source of protein while the next round is much drier and is left alone by its producer. Jackrabbits have more of a crepuscular to nocturnal lifestyle, meaning they are more often seen in the early morning or at dusk and into the night. You may see one out during the day, but they tend to rest during the hotter parts of the day in shady "scratched-out hollows."

In Texas, jackrabbits are classified as non-game species. With a valid hunting license, they may be hunted year-round with no bag limit. Tularemia (rabbit fever) is a disease that most often affects rabbits, hares, and rodents. To protect yourself from tularemia after harvesting rabbits or hares, use gloves while cleaning the animal and



Black-tailed jackrabbits have ears roughly as long as their hindfoot. Notice the black line along the tail. Photo©TPWD

cook the meat thoroughly. It is worth noting that Rabbit Hemorrhagic Disease (RHD) was confirmed in wild rabbits and hares earlier this year in West Texas for the first time in the state. Previously it had only affected domestic rabbits in Texas. While this disease is fatal to rabbits and hares, it is not known to affect humans or pets. The Oak Prairie District has no known cases, but since this is newly detected in the state in wild rabbits and hares, please contact your biologist if you observe die-offs from these species.

https://www.nps.gov/bibe/learn/nature/jackrabbit.htm

https://tpwd.texas.gov/huntwild/wild/species/rabbit/

https://www.nationalgeographic.com/animals/mammals/b/black-tailed-jackrabbit/

https://www.desertusa.com/animals/jack-rabbit.html

https://www.depts.ttu.edu/nsrl/mammals-of-texas-online-edition/Accounts\_Lagomorpha/Lepus\_californicus.php

https://tpwd.texas.gov/newsmedia/releases/?req=20200421a



Shannon Lawrence is the wildlife biologist for Victoria, Calhoun, and Refugio counties. She received her B.S. in Range and Wildlife Management from Texas A&M-Kingsville. After several internships, including 2 years at the Attwater Prairie Chicken National Wildlife Refuge, Shannon moved to Arizona for 13 years. There she earned her M.S. in Wildlife Conservation and Management from the University of Arizona and worked as a wildlife biologist for the Arizona Game and Fish Department and Fort Huachuca Army Installation. Shannon reclaimed her Texas residency and began her career with TPWD in February 2018.

MONTHLY BULLETIN

# **Along Texas' Great Outdoor Trails**

**4 TYPES POISONOUS SNAKES** Texas has four species of poisonous snakes, but three of them have a variety of sub-species. Largest number of subspecies is boasted by the rattlesnake fam-ily. There are ten, namely pigmy or ground rattler, Willard's, Prairie, Western dia-mond back, green yelvet, diamond back, green rock, mountain, black tail and cane brake. There are two varieties of copperheads and three of coral snakes, but there is only one member of the moccasin fam-ily which is poisonous. It is the cotton mouth.

6

Snakes need not spoil the fun of a hunt or a tramp through the woods, Game De-partment officials point out, but warn sportsmen to be on the alert. A good pair of boots is the best protection. Never sit down in the woods or fields without looking, nor rest your hand on a rock with-out first scanning it.

#### WOULD TRAIN CAT AS RETRIEVER

C. E. Alvis, Jr., of Gatesville, Texas, has a cat he hopes to train to retrieve quail only during the open season .The other day the cat came to the Alvis door in quite a pleased state and making distinct noises of pride. He held in his mouth an uninjured full-grown Bobwhite. Mrs. Alvis took the bird from him, liberated it and the quail flew away to safety. Wild house cats do much damage to the

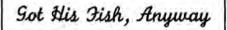
wildlife in all sections of the country and many states carry on campaigns to prevent people from dumping unwanted cats on the roads.

#### HIRE EX-SERVICE MEN

Senate Bill No. 190 passed by the Forty-sixth Legislature set out the requirement that preference should be given ex-service men by all state departments and required each department to have a minimum of 10 per cent of its personnel composed of former service men. A complete check of the State Game Department reveals that 19 4/5 per cent of the employees of the Department served in the Army, Navy or Marines, the executive secretary of the Department has announced.

#### KILL MALE MARSH HAWKS

There are ony four kinds of hawks in Texas which are not protected, but it is feared many sportsmen are mistaking the male warsh hawk for one of them and are shooting many. This belief was emphasized recently when the game warden in Colorado County reported to the Game Department's executive secretary that while checking the Garwood rice belt for ducks and geese he saw twenty-six female marsh hawks and no males. The following day he sighted and identified forty-one female marsh hawks and only four males in the Eagle Lake rice belt. Goshawks, duck-hawks, sharpshinned hawks and Cooper hawk or blue darter are the unprotected hawks. It is known that all other species of hawks do much good by eating rodents. Because the male marsh hawk is blue in color most people believe they are the Cooper or blue darter and shoot them. The female is brown. Both the male and female have a light ball of feathers at the rump. They fly slow and close to the ground.



A little thing like a shark stealing his twenty-five pound redfish didn't keep

G. P.Hardy, Jr., of Bay City, Texas, from feasting on redfish recently. On a recent expedition to Brown Cedar cut, Mr. Hardy caught a big red. He staked the fish and resumed his angling. A few minutes later he pulled in his stringer for a prideful look at his neat catch, but nothing remained of the red except its head. Disgruntled, Mr. Hardy went on fishing and in a few minutes tied into a whopper. After a battle, he landed an eight-foot shark. Upon cutting the shark open the fisher-man was amazed to find his huge redfish in its stomach. Mr. Hardy later announced that the fish's unusual adventure in no way affected its flavor.

#### CAN'T HAPPEN IN TEXAS The director of the South Dakota State Game and Fish Department recently was dismissed when he was caught by one of his own wardens hunting without a license. That can hardly happen in Texas because the executive secretary of the State Game Department insists that all wardens and other employees of the department who hunt or fish purchase licenses and he is generally the first one to obtain them.

#### DON'T KILL ROBINS

"Don't kill robins" is the warning being issued almost constantly by the executive secretary of the Game Department. Reports are being received from all over the state of small boys and boys not so little slaughtering the songbirds with air rifles and slingshots. Game Wardens are kept busy answering calls from irate citizens who are seeking to protect the birds. Robins are protected by state law and being migratory birds, persons found guilty of killing them are subject to fine in federal court.

#### DEER TAKES A JAUNT

A branded deer killed recently gave Texas Game Department biologists some light on how deer travel from range to range.

F. C. Heil of Goliad, Texas, hunting on the Charles Klemstein, Sr. place, shot an 8-point buck which was marked on the ear and branded with the Ernest Pfeiffer stock brand. The deer had been captured three years ago when it got caught in a barb wire fence on the Pfeiffer place. It is twelve miles from the place where the deer was branded and where it was killed.

#### CASTER CATCHES JACKSNIPE

S. L. Davidson of Bay City, Texas didn't catch a flying fish recently, but probably thought he did when he got a vicious strike when his artificial lure was in mid-air. Investigating the cause of bait being taken in the middle of his cast the fisherman discovered he had caught a jacksnipe as it sped by. Sims McDonald, his fishing partner, witnessed the unsual catch.

#### TEXAS FISHERMEN SCORE

Four Texas bass fishermen and one tarpon angler won prizes in a nationallycirculated magazine's annual fishing con-test. Cliff Burgess of Gladewater was a prize winner with a 7% pound bass caught at Burns Lake near Center, Texas. James M. Young of San Angelo and Ben F. Brooks of Bagwell each scored with a 71/4 pound bass. Young's came from Lake Nasworthy near San Angelo and Brooks' fish was caught in Lake Brooks near Bagwell. Wade E. Fitzgerald of Fort Bliss was the fourth Texas bass fisherman to win, his 6 pound, 13 ounce bass being caught in New Mexico.

A 154-pound tarpon taken by Harry B. Falconer of Dallas off Port Isabel, Texas, won the deep sea fisherman a prize.

#### DEER DIDN'T STRAY FAR

Here's one deer which liked his "home" so well that he was killed within 400 yards of the place where he had been released three years previously. Ex-Mayor Fonville of Houston killed the six-point buck on the Foote Ranch in Colorado County during the closing days of the hunting season. It had been marked in June 1936.

#### MAJORITY ALLOW HUNTING

The false impression that all the game preserve demonstration areas set up in Texas by A. & M. College are closed to hunting still persists, but should be dispelled by the annual report of the College, which shows that of the 23,280 farmers and ranchers who are co-operating only 7,017 do not allow hunting at the present time. That leaves the land owned by 16,163 cooperators open to sportsmen for controlled hunting and fishing. Hunting should be better on the areas in the demonstration program because landowners are pledged to improve their cover for game birds and animals and to provide proper food. Many of the demonstrators are making a charge for hunting and fishing rights.

#### CARDINAL HAS ILLUSIONS

Mickey Hart's new motor car is only a little worse for the experience, but that Texan is wondering how much the bill of a certain cardinal suffiered. Mr. Hart parked his car under a live oak tree near Bay City recently and it was not long until a male cardinal, upon seeing his reflection in the side of the automobile started battling it viciously. The "fight" continued all day. It was resumed the following day and it was finally necessary for Mr. Hart to scare the bird which had illusions away by shooting a gun into the air every time it returned to the running board.

#### ONE HITCH HIKER LESS

Texas probably has one hitch hiker less these days as the result of an experience by one member of the gentry of the open road. This particular hitch hiker decided to spend the night in a culvert in Gillespie County, the Fredericksburg Standard re-lates. When he started under the culvert he was confronted by a huge cat. The hiker left hurriedly in one direction and the cat in another. The hiker swore the cat was a full-grown panther.

### **Upcoming Events**

# WILDLIFE DISTRICT 7 WEBINAR SERIES

### WEBINARS BEGIN AT 12:00 NOON PARTICIPANTS WILL RECEIVE A LINK TO TUNE IN LIVE

Aug 6: Habitat Management for Quail

Aug 11: Using Prescribed Fire to Improve Deer Habitat

Aug 13: Brush Management Practices for Improving Wildlife Habitat

TEXAS

better outsi

Aug 18: Grazing as a Tool for Wildlife Management

Aug 20: Turkey Habitat and Plant ID

Aug 25: Supplemental Water for Wildlife

Aug 27: Texas Wildscapes: Gardening for Wildlife

To register please go to: https://bit.ly/D7webinar

For Questions Contact: clinton.faas@tpwd.texas.gov

### **Upcoming Events**

#### August -

#### 28 Washington County Wildlife Society Semi-Annual Meeting

Washington County Fairgrounds Event Center 1305 East Blue Bell Rd., Brenham, TX 77833 Begins at 5:30 p.m. Contact the AgriLife Extension Service at 979-277-6212 for RSVP \*\*\*Due to COVID –19 meeting details subject to change.

### September ·

9 Colorado County Wildlife Management Association Combined Fall Meeting Columbus Hall Time TBD

Contact Chad Emmel at 979-732-1399 Rescheduled from Spring Banquet, check <u>www.ccwma.org</u> for more details.

19 Buckners Creek Wildlife Management Association Fall Meeting St's. Peter and Paul Church in Plum

> Begins at 2:00 p.m. Contact Greg Smith (512-694-3335) or Paula Thompson (979-549-5828)

19 West Navidad Wildlife Management Association Fall Meeting Rockin W Barn on Hwy 77

Begins at 6:00 p.m. Contact Jessica Wick at 979-743-1903

19 Egypt Wildlife Management Association Meeting Krenek Seed, Egypt, TX

Begins at 5:00 p.m. Contact Clinton Faas at 832-595-8999 or <u>Clinton.faas@tpwd.texas.gov</u>

### October -

10 North Central Fayette County Wildlife Management Association Fall Meeting Camp Kubena Begins at 4:00 p.m. Contact Luke Sternadl at 979-966-2085 29 Central DeWitt Wildlife Management Association Meeting

> Cuero VFW Hall Begins at 5:30 p.m. Contact Jon Marie-President or Mary Keating-Membership 361-564-4671, <u>cdcwma@gmail.com</u> Join us for our annual meeting to discuss the upcoming hunting season.

Meyersville Wildlife Management
Association Meeting
13052 US Hwy 183 South
Begins at 6:30 p.m.
Contact Hank Chinnery at 361-443-2094 or
hchinnery@hotmail.com
Educational Program and updates from Texas
Parks and Wildlife Department.

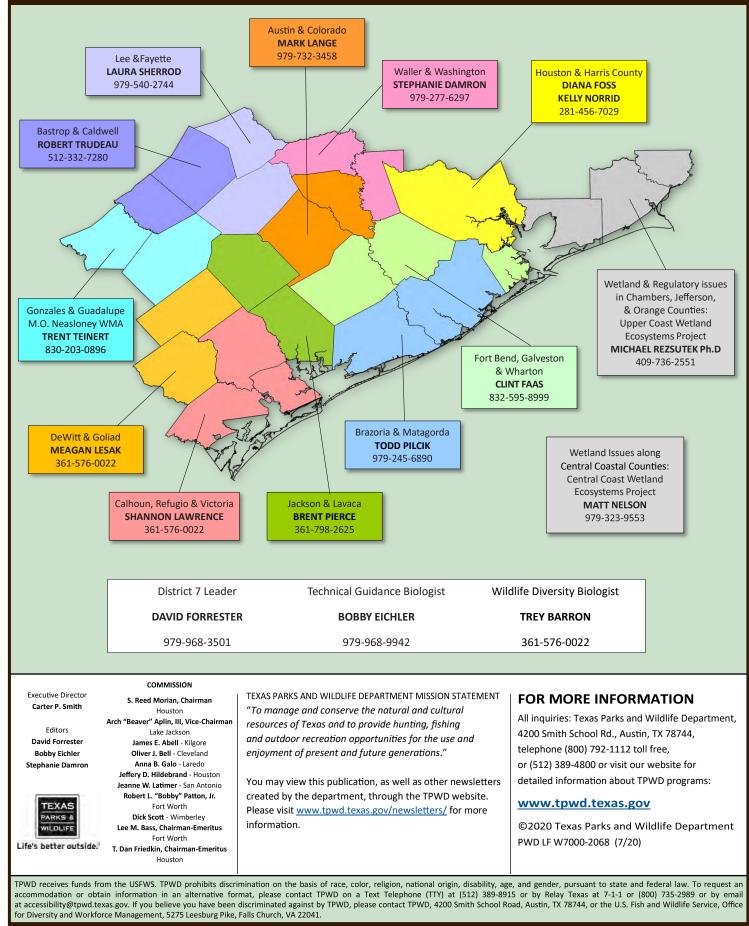
#### 19 Jackson County Wildlife Management Association Meeting

Jackson County Service Center located at 411 N Wells St. Edna, TX 77957 Begins at 4:00 p.m. Contact Jim Theiss at 713-253-1135 or jtheiss13@comcast.net https://www.facebook.com/jacksoncowildlife/

10 East Navidad Wildlife Management Association Fall Meeting Dubina Hall Begins at 6:00 p.m. Contact Tammy Koenig at 512-567-7922

#### **Oaks and Prairies Wildlifer**

### **Our Wildlife Biologists**



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