>>> PUBLICATION OF THE TEXAS BIGHORN SOCIETY

Restoring Bighorn Sheep to their Native Ranges in Texas, and Ensuring the Viability of their Habitat

The Bighorn

SPRING 2015

CONTRIBUTORS

Scott Jacques grew up first in Del Rio and then Houston where he graduated from high school. He continued his education at Texas A&M University, where he ultimately completed his Ph.D. He currently resides in College Station and works for the Texas A&M University System as the Section Head for Texas A&M University Veterinary Medical Diagnostic Laboratory.

Cathryn A. Hoyt was born in Lubbock, Texas—the first of many homes as her father, an officer in the Air Force, was transferred around the world. She received her B.A. in archeology from the University of Arizona, an M.A. in Nautical Archeology from Texas A&M University, and a Ph.D. in paleoecology from the University of Texas. After excavating sunken cities in Jamaica and shipwrecks in Bermuda, she settled in the Chihuahuan Desert of West Texas where she served as the Executive Director of the Chihuahuan Desert Research Institute for 13 years. She currently lives in Fort Davis.

Froylán Hernández was born and raised on a ranch in Brackettville. After high school he enlisted in the Marine Corps, ultimately attaining an honorable discharge. He continued his education at Texas A&M University for his B.S. and Sul Ross University for his M.S. While preparing for his current role as Desert Bighorn Sheep Leader for the Texas Parks and Wildlife Department, Hernandez gained valuable work experience during stints with the Texas A&M Wildlife Department, the U.S. Fish and Wildlife Service and the Caesar Kleberg Wildlife Research Institute. He also points to his tour as the night shift dishwasher at the Segovia Truck Stop Restaurant, near Junction, as a perspective-shaping experience during junior high school that helped lay the foundation for big dreams and a life of adventure. He currently resides in Alpine.

BIGHORN

The official magazine of the Texas Bighorn Society
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Bighorn is published 3 times annually

TECHNICAL SPECIFICATIONS

Bighorn is a four-color glossy publication, and the following is required:

Ads should be supplied on a disk and in one of the following formats:

- Photoshop
- TIFF (Preferred)
- PDF (Preferred)
- JPEG

Each ad should be: 300dpi (minimum) in CMYK color space

All other formats must be approved by our production staff

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Summer – April 1st
Fall / Winter – October 1st

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Inside Back Cover (Supply as full color bleed)	$270.00
Back Cover (Supply as full color bleed)	$315.00
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BIGHORN

Spring 2015

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Texas Bighorn Society

[Spring 2015 Membership Application]

YES! I want to help restore Bighorn Sheep in Texas!

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SPRING-2015

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- ☐ LIFE
  $750.00 [one time]
  Life membership, Life Bighorn Magazine, 2 Window Decals, Wall Plaque & Badge

Howdy, New Members!

On behalf of the current members, the TBS Officers & Directors, and all the Texas Bighorn Sheep your patronage will go to support, we'd like to welcome you to our organization! We appreciate your support and look forward to seeing you at the next TBS event!

individual

Lane Ankenman
John R. Blocker III
Steve Coburn
John M. Davis, Jr.
Dan Fienhold
Scott Harton
Travis McGuire
Weldon McGuire
Chris Manuel
Doug Meis
Madison Payne
Paul Pierson
John Shaw
Catherine Solano

family

Philip Frey
Dale & Mary Smith

student

Henry Wood

Don't forget - Student Memberships are only $25/year! Encourage students you know to join today!

***please,**

Help us stay current with your address and email information! Contact Diane Gregson if you have moved, changed email addresses, or have questions about your membership. She can be reached at:
dgregson@texasbighornsociety.org
806-745-7783

News

Check facebook.com/texasbighornsociety
for more photos and videos!

News

The Texas Bighorn Society received two generous grants recently. The first was from the Wayne and Joan Webber Foundation, in early December. The second was from the Doyle Hill Fund, administered by the Greater Houston Community Fund. It was received in mid-December. A big thanks goes out from TBS for both generous donations.

General Membership Meeting

The membership meeting will be Friday, March 27th, at approximately 6:00 p.m. Following this will be an auction, lots of good food, fun and fellowship.

Texas Bighorn Society
1615 West Loop 289
Lubbock, Texas 79416
806-745-7783 telephone
806-745-8475 fax
email:
dgregson@texasbighornsociety.org

2015 Work Project

We will be building three guzzlers for Texas bighorn sheep on the Adams Ranch right down the road from Black Gap WMA. These will be full blown guzzlers as we have been building all over the fine State of Texas for the last 30 plus years.

Also, we have been asked by Texas Parks and Wildlife to rework at least one older guzzler on Black Gap WMA. They have not informed us, as of yet, exactly what will be required to do this repair work. Possibly new tanks, plumbing, cleanup and who knows what will be required.

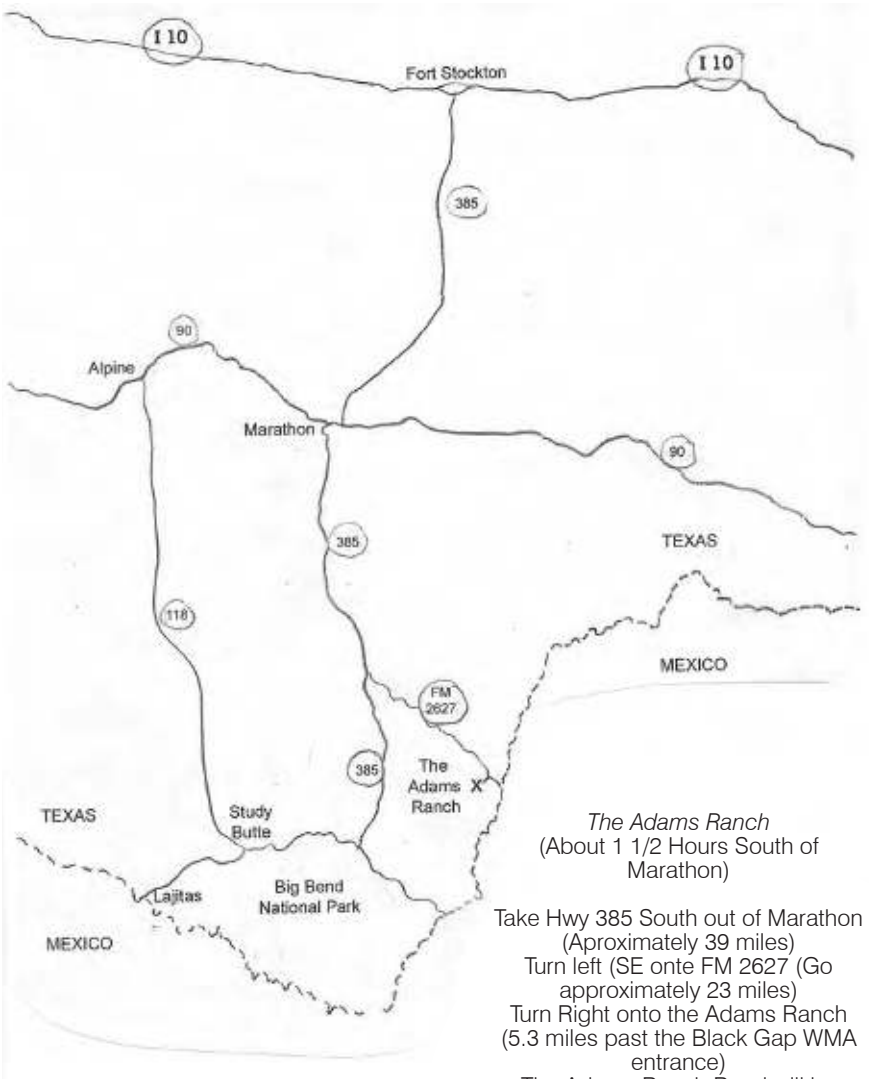
The Adams Ranch, as those of you who were there two years ago know, is a campout site with shed and some bunk bed type accommodations. Bring sleeping bags, tents, campers, RVs. (no hookups available) Bring some plumbing tools, digging tools, battery drills, and whatever else you think we might be able to use. Showers and porta-potties will be available.

Show up on Thursday afternoon and plan on departure Sunday morning.

Meals will be provided beginning Thursday evening through Saturday night. We always need help with the meal preparation. If you would like to volunteer please contact us. See contact information below.

If you plan to attend, and we hope you do, visit the TBS website: www.texasbighornsociety.org and sign up. While you are there check us out on Facebook. If you don't speak internet, call us or fax us and let us know you are coming. We definitely need to know the head count for food preparation.

Texas Bighorn Society
2015 Work Project
Maps and Directions



The Adams Ranch
(About 1 1/2 Hours South of Marathon)

Take Hwy 385 South out of Marathon (Aproximately 39 miles)
Turn left (SE onte FM 2627 (Go approximately 23 miles)
Turn Right onto the Adams Ranch (5.3 miles past the Black Gap WMA entrance)
The Adams Ranch Road will be clearly marked with El Carmen Sign and flags
Go 9 miles on the main wide dirt road (do not turn off)
The road goes directly to headquarters.

Letter From the Editor

Driving home from the work project in 2011, my parents and I were re-routed by a highway patrolman as we left Alpine with the added advice to get down the road immediately as more closings were likely coming. We got to quickly vacate the area but for those with interests nearby, the nightmare was only beginning. Looking out of the side window, we could see a flickering line of flames immediately in front of a black swathe of charred rangeland with the horizon of dried grass waiting for its advance. Though the fire did not go directly through any classic desert bighorn country, it was a sobering reminder that ultimately, nature will do whatever it wants despite our efforts to "help" it. So many friends of the Texas Bighorn Society were affected by the fire, I thought it would be good to revisit the event and see how the recovery was coming along. Cathryn Hoyt did an amazing job telling the story from her front row seat with the Chihuahuan Desert Research Center.

Desert bighorns lost a couple of old friends in 2014. I had already been thinking about digging up a little history on the early restoration efforts when I came across an old Texas Game and Fish (later Texas Parks and Wildlife Magazine) story by Tom Moore. The current staff at the magazine was most gracious in granting us permission to reprint the story, enabling us to honor both Tom and some of the earliest efforts to restore wild sheep to Texas. TBS members have heard a lot of Jewell McAdoo stories over the years. Those tales have always echoed the same core elements: her love of the land and its wildlife, her working relationship with the Texas Parks and Wildlife Department and her friendliness. I had the opportunity to interview her for a piece a few years ago and though I had never met her before, by the time we were through, she had invited me to come out for a visit and stay in the bunkhouse if I needed a place to sleep. You'll get to read about the tribute to her.

This issue also contains some highlights of the work of Scott Jacques. He has been to several work projects and capture events. Scott talks about some of the initiatives he's been working on to establish some baseline data for the state's desert bighorn population, laying the foundation for future studies. Like most TBS members, Scott blends right into the crowd but his talent and discipline serve the sheep in a unique way that further elevates the quality of the restoration efforts.

We hope that you get a chance to see some of the bigger picture with this issue. Loking at both our past and our future helps shape our perspective. Seeing the work, the struggles and the cooperation over the decades hopefully leaves us with a greater appreciation for the current health of the sheep population and a healthy hope for their future.

Enjoy,

John R. Meyer

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Looking Forward to Another Great Year

[Letter From The President]

Kathy R. Boone
TBS President

As we look forward to another year, I would like to take a brief moment to appreciate all that we accomplished in 2014 and the members who made it possible. It was a great year for the Texas Bighorn Society, and I am proud of the progress we have made.

In March we built two new guzzlers at Black Gap Wildlife Management Area and refurbished several others. There is a promotional video posted on the TBS website which was filmed during this project. I would encourage all of you to take a moment to watch it and recognize the fact that you were part of making it possible. These videos are important in gaining support and recognition from the community, and I think this serves as a great example of why we continue doing what we do.

Once again this year we had a successful and entertaining Roundup in Cowtown USA (aka Fort Worth, Texas.) Highlights include the keynote address by Gray Thornton, President and CEO of the Wild Sheep Foundation, and an evening of great music and dancing thanks to Craig Carter and the Spur of the Moment Band. The weekend's festivities yielded an impressive $208,000.00. As most of you know, all money raised from membership dues and our annual Roundup weekend is used exclusively to help return desert bighorns to their native ranges in the state. Successful Roundups like this one go a long way in making this goal a reality.

We all look forward to the 2015 Roundup on June 5th & 6th at Tapatio Springs (near San Antonio). I hope that everyone can make it again, and we would like to have an even bigger and louder crowd this time around.

In other news from the year, Texas Parks and Wildlife Commissioner Chairman, Dan Allen Hughes, Jr., appointed Robert Joseph and myself to serve on the Bighorn Sheep Advisory Committee for a four-year term beginning in 2014. This committee serves in an advisory capacity to TPWD and ensures that TBS has the opportunity to provide valuable input regarding decisions affecting desert bighorn sheep conservation, restoration, research, and management in Texas. I would like to recognize Froylan Hernandez, TPWD Bighorn Sheep Program Leader, who serves as coordinator for the committee. I believe that the direct line of input provided by this committee is an important means of advancing our agenda and goals, and our participation will help shape restoration and conservation efforts for years to come.

Looking ahead to 2015, I believe we are in store for an equally promising new year. The Work Project will be March 27th and 28th at the Adams Ranch. El Carmen Land & Conservation Company (ECLCC), formerly the Adams Ranch, is jointly owned by Cemex USA out of Houston, Texas, and Cuenca Los Ojos Foundation (CLO), run by Josiah and Valer Austin of Pierce, Arizona. As demonstrated by their commitment to this region, both Cemex and CLO fully recognize the importance of the ECLCC's strategic location as the connecting link in a vital ecological corridor bridging two countries. Supporting these organizations in the restoration and conservation of the lands and wildlife are a priority for TBS in 2015.

I would like to thank you all again for your continued support and dedication to the Texas Bighorn Society, I wish you all the happiness and success, and look forward to another great year thanks to your continued involvement.

Kathy R. Boone
TBS President

Out of the Ashes: The Rockhouse Fire and Its Aftermath

Photos and article by: Dr. Cathryn A. Hoyt, PhD

Fire approaching across the grasslands south of Fort Davis on the night of April 9, 2011.

A spark. A dry blade of grass. A gust of wind.

Thirty-four days and 314,444 charred acres later, exhausted fire-fighters report that the Rock House Fire is finally contained. The devastation is hard to describe. Homes are gone. The grasslands are black. Pronghorn and cattle snuffle through the ash, looking for something to eat. But was all lost? Or was this just nature's way of hitting the ecological reset button?

The Rock House Fire started in Marfa, Texas, on a windy, April day in 2011. Spring fires weren't unexpected. The Davis Mountains region of West Texas received very little precipitation during the winter months, so the grasses were dry and ready to burn. A spark from the railroad, someone burning trash, or a careless smoker's cigarette flicked out a window could easily start a fire that would spread with the help of relentless spring winds. But the Rock House Fire was different—bigger and faster than anyone had ever seen before.

Conditions for a fire

For a fire of this magnitude, three conditions must be met: First, there has to be an ignition source. Following the Rock House Fire, investigators reported that a shower of sparks ignited the surrounding vegetation when electrical lines snapped together during the 60 mph winds that blew that day.

Second, there has to be adequate fine fuels—plant material that is less than ¼ in. in diameter—to carry the fire. The foothills of the Davis Mountains are blessed with fine fuels—miles and miles of grass. These grasslands were particularly luxurious in 2011 due to the abundant spring and summer rains that occurred in 2010.

And finally, for a wildfire to travel, the fuel has to be dry enough to burn. This last condition was met with a vengeance: not only was the humidity low that day, but the vegetation was crisp from record-breaking low temperatures and high winds, which literally freeze-dried plants in February.

The Rock House Fire roared through the grasslands and up into the mountains northwest of Fort Davis, leaving little more than smoldering fence posts. Could anything survive a wildfire this intense? Yes. Only a few days after the fire, green leaves began to appear around the clumps of grasses; and within weeks herbaceous plants such as nightshades, milkweeds, and tiny legumes were flowering.

The (Slow) Road to Recovery

It's been 3.5 years since the Rock House Fire. To a keen observer, evidence of the fire still exists—the shell of a house never rebuilt, skeletons of juniper trees, and miles and miles of new fencing (constructed with fire-proof metal posts). But the rest seems pretty much business as usual with grasses glowing golden in the morning light and pronghorn sentinels standing watch over the herd.

Has everything recovered? Well, not quite, say regional biologists and range managers.

The plants and animals of the Davis Mountains are fire-adapted. In fact, many benefit from periodic wildfire. Large animals such as pronghorn and mule deer flee, running from the flames or escaping to sheltering canyons, while the fleet-of-wing take to the air. Smaller animals scurry into burrows protecting them from the flames and extreme temperatures.

Even so, 2011 saw a significant drop in mule deer, pronghorn, and quail populations, says James Weaver, Texas Parks and Wildlife biologist. But he doesn't attribute this drop in numbers to the fire. "It was most likely due to drought," he says, "since numbers were down across the region—even in places that didn't burn."

Drought is the wild card in the game of ecosystem recovery. With no measurable precipitation in the 6 months preceding the fire and less than 5 inches of precipitation during the 12 months following the fire, recovery was painfully slow the first couple of years.

However, even without benefit of rain, the ability of a plant to recover quickly after a wildfire depends on many factors. One of the most important is whether a plant's growing points are above or below ground. Growing points are where the plant's new cells develop.

Although grassland fires can burn at temperatures over 1000 ° F, the soil is a wonderful insulator. Just a few inches below ground, soil temperatures barely rise as the fire passes over. Soil microbes, seeds, and roots insulated by a shallow blanket of soil can survive.

In a study of vegetation recovery at the Mimms Ranch just north of Marfa, researchers from the Borderland Research Institute found that blue grama (a rhizomatous grass with growing points that occur on underground stems) was the first to show new growth. Without adequate moisture, however, the plants were diminished in both size and number. Bare ground between clumps of blue grama was rapidly filled in by a variety of herbaceous plants and two species of short-lived perennial grasses (three-awn and Hall's panicum).

Just weeks after the fire, forbs such as this silverleaf nightshade were beginning to bloom.

Sul Ross State University student, Mark Foreman, conducts a study of vegetation recovery in the burned and unburned portions of the grasslands at the Chihuahuan Desert Nature Center.

Pronghorn in the Marfa grasslands.

Black grama, another important grass of the semiarid grasslands, did not fare so well. Because they reproduce vegetatively by sending out aboveground stems, black grama can be extremely vulnerable to fires. The black grama monoculture found on rocky slopes on the Mimms Ranch showed no evidence of recovery even 18 months after the fire.

The abundance and diversity of forbs (basically everything that's not a grass or woody tree or shrub) made a dramatic difference in the appearance of the grasslands. Milkweeds, nightshades, spurges, chocolate flowers, rushpeas and many other species dotted the black soil. The rapid growth of these "weedy" forbs was critical to holding exposed soil in place, and providing nectar and food sources for game and nongame animals.

"The forb growth was good for the pronghorn," says Dr. Louis Harvison, director of the Borderlands Research Institute. "They were back in the burned area before the ground quit smoking."

The forb growth was also beneficial to wildlife such as butterflies and birds. In a side-by-side study of burned and unburned grassland at the Chihuahuan Desert Nature Center, researchers documented twice as many butterflies and birds utilizing the burned area than the unburned area.

The impact of the Rock House Fire extended beyond the grasslands. Tens of thousands of acres of pine-oak forest were also burned. Although pine and oak trees tend to be well adapted to wild fires, the combination of fire, followed by drought and pine beetle infestations resulted in high tree mortality.

Bill Oates—of the Texas Forest Service—spent two days surveying ponderosa pine trees at The Nature Conservancy's Davis Mountains Preserve recently. Although the Preserve did not burn during the Rock House Fire, it did burn almost exactly a year later during the Livermore Complex Fire and what was found there is probably representative of the region. "I'd estimate that about 60% of the ponderosa pines we looked at were dead," says Oates. "The sad thing is that there's little regeneration. I could only find one seedling in the entire area we surveyed."

The Texas Forest Service is so concerned about this situation that they've launched a project to collect seeds from healthy ponderosa pines in Fort Davis, grow out seedlings, and restock the forests of the Davis Mountains.

Benefits of the Fire

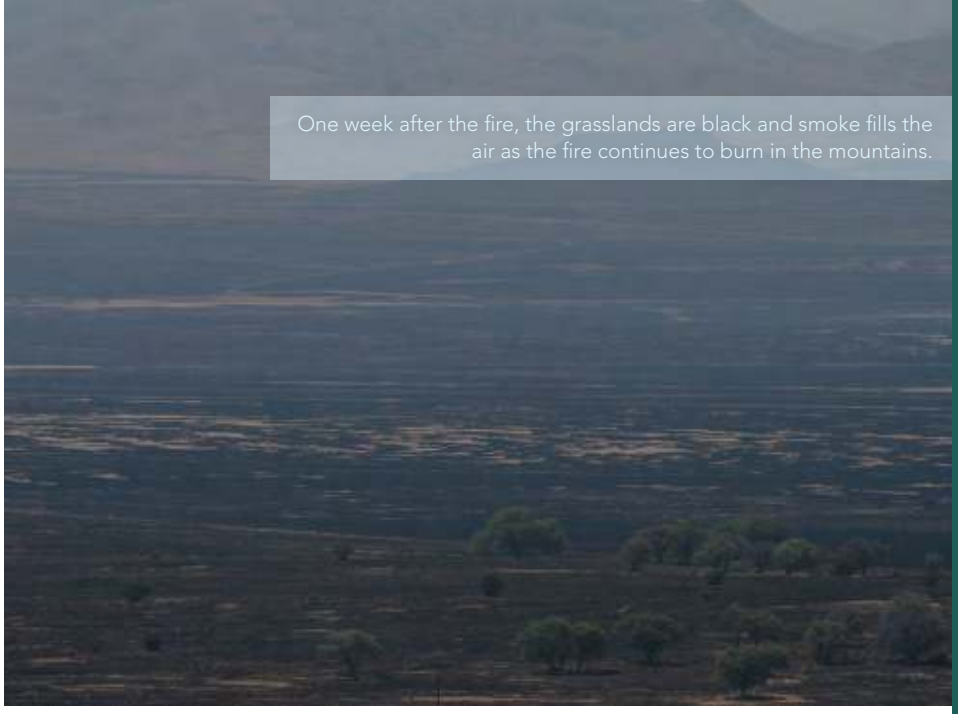
While difficult for those of us that lost our homes, and for the ranchers who lost stock and couldn't use their land for grazing for over a year, ecologically, grasslands and forests need to burn. Fire is good for the land is the mantra repeated over and over.

In a study of plant recovery at the Chihuahuan Desert Nature Center, researchers found that for a year post-fire the amount of plant material on the burned and unburned portions of the grassland was almost exactly the same when expressed in kilograms per hectare (kg/ha). The difference lay in the proportion of grasses to forbs. On the burned side of the grassland, forbs accounted for 569 kg/ha while grasses weighed in at 1179 kg/ha. On the unburned side, forbs only accounted for 155 kg/ha while grasses dominated at 1665 kg/ha.

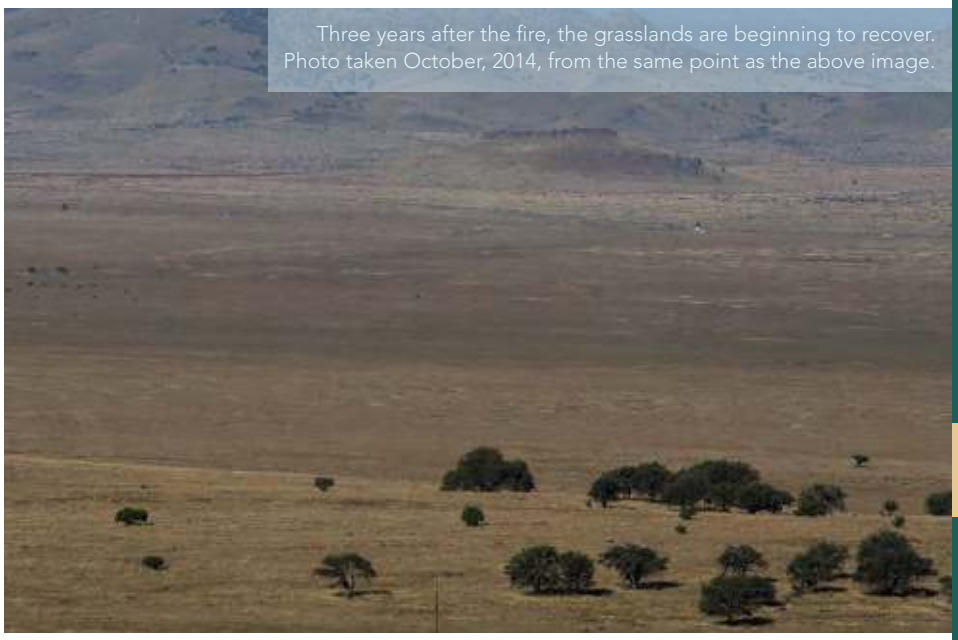
Basically, the fire has resulted in increased plant diversity in the grasslands—a diversity that is critical for the nutritional health of pronghorn and other grazers. The increased abundance of forbs also ensures a greater diversity of invertebrates, small mammals, and birds.

The fire provided the opportunity to rebuild fences in the region. Prior to the Rock House Fire, many of the ranches were enclosed in netwire—a legacy from the days of sheep and goat raising. But netwire prohibits the movement of pronghorn across the landscape. Dr. Harveson seized the moment to distribute information to ranchers about the importance of pronghorn-friendly fences, and the Natural Conservation Resource Service jumped in with programs to help fund fence replacement. "About 80% of the new fences are now pronghorn friendly," says Dr. Harveson with pride.

Good rains during the growing season in 2014 have resulted in lush grasses and the recovery of many game and nongame species. "But what will happen next spring?" is a question raised over and over. Things may be looking better, but the threat of another wildfire is something that residents will not soon underestimate.



One week after the fire, the grasslands are black and smoke fills the air as the fire continues to burn in the mountains.



Three years after the fire, the grasslands are beginning to recover. Photo taken October, 2014, from the same point as the above image.

Approximately 90% of the Mimms Ranch burned in the Rock House Fire. Three years later, the grasslands are beginning to recover.

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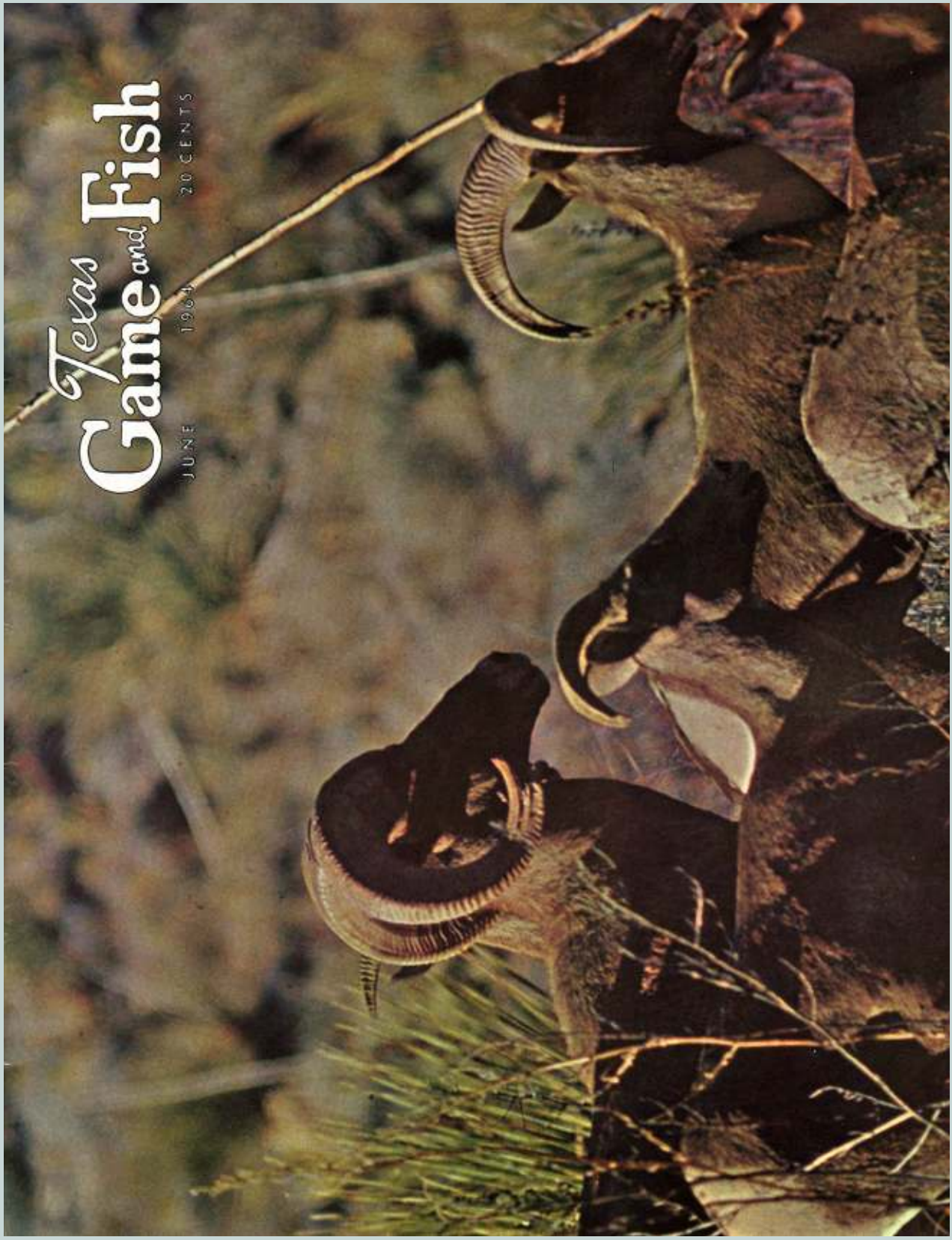

A special thanks goes out to the folks at Texas Parks and Wildlife Magazine for allowing us to reprint a story written by Tom Moore describing some early work on desert bighorn sheep restoration by the Texas Parks and Wildlife Department. The early going was tough but the fruits we get to enjoy today were based on the labor of many over the years.

Immigrant

Trapping and trans

will boost th

if the ne

by TOM D. MOORE, wildlife biologist

RENEWED EFFORTS to restore the bighorn sheep to its former range in Texas began back in 1954, but not until last year did a successful transplant of the animal from Arizona into Texas take place.

Four bighorn sheep, two ewes and two rams, are now in the Texas holding pasture—427 acres on the Black Gap Wildlife Management Area in southeastern Brewster County. Twenty-five bighorns are to be taken there as broodstock for future releases. Young raised from the sheep at Black Gap will be released in areas containing suitable bighorn habitat.

The tremendous task of trapping and transporting these big game animals into Texas was made necessary by a drastic depletion of their population here after World War II. The bighorns have never been known to exist in large numbers in Texas. In fact, the hunting season has been closed since 1906. In 1940, approximately 200 sheep were estimated to be in the Sierra Diablo, Beach, and Baylor Mountains of far West Texas. This number was cut to about 100 shortly after the war, according to A. R. Williams, game warden supervisor.

Rugged mountains typify the Arizona terrain where the bighorn sheep were trapped. Netting in the foreground surrounds the waterhole.

on Trial

planting the bighorn sheep

e small native herd

arrivals can adjust to their Texas home.

TOM D. MOORE

Today there are only two dozen or so bighorns known to exist in the remote portions of these mountains.

Negotiations were made with the Arizona Game and Fish Department for suitable broodstock, with the cooperation of U. S. Fish and Wildlife Service, Wildlife Management Institute, Boone and Crockett Club, National Park Service, and Texas Game and Fish Commission. Texas agreed to pay the trapping expenses. Trapping operations were located on the Kofa Game Range, Arizona, an area operated by the U. S. Fish and Wildlife Service.

From the beginning, the trapping operation was slow and expensive. Efforts to bait the sheep with various feeds and salt were not successful. The only practical method was through the use of waterhole traps.

Small net corrals were built around the water at four natural potholes. An entrance gate eight feet wide permitted the sheep to go into the corral trap. The gates then had to be tripped by the men stationed in a nearby blind. Because many other animals entered the trap, mainly deer, no automatic gate-tripping device could be used.

The Kofa area is extremely dry. During the hot summers sheep must come to the natural potholes for water. But if the range is in good condition and the vegetation lush from early rains, or if the weather is cool, many bighorns may go without water. At best it was a long, tiresome wait for the biologists taking part in the project.

More than 2,000 hours were spent in 1957 and 1958 waiting for the sheep to enter the traps. Before the expected trapping peak each year, all known available water in the vicinity of the traps was siphoned out onto the ground so that the sheep would be forced to go to the trapsites.

The first bighorn travelers—an old ewe (over 10 years) and a younger ewe (about five years)—made their five-hour flights from Arizona to Texas in a Cessna 180 airplane. The plane was capable of transporting a 700-pound cargo load and could accommodate two or three average-size bighorns after the rear seat and baggage compartment were removed.

The older animal was kept in a small holding pen for 10 days before being shipped to Texas. It ate native browse, mainly coffeeberry (*Simmondsie chinensis*),

• Continued on next page

Inside one enclosure, this sheep showed spirited dodging up and down the rough, steep rocks before biologists were able to catch it.

At least three men were required to lift the heavy bighorn sheep into the truck. Then the animals were taken to Yuma airport.

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Blood Thirsty

By Dr. Scott Jacques, PhD
Photos by John R. Meyer

Several years ago, the opportunity arose to volunteer with the Texas Parks and Wildlife Department (TPWD) on their Desert Bighorn Sheep Project. Most people at the Texas Veterinary Medical Diagnostic Laboratory where I work were unfamiliar with it until Clay Brewer, a TPWD biologist, came to the Texas A&M University (TAMU) campus to speak about the potential of sampling and developing a testing protocol that could monitor the herd health of Texas' desert bighorn sheep. He did not ask for volunteers at the time, though I quickly hatched a plan to sign up with a colleague, Dr. Lloyd Sneed. In short order, we developed a strategy for collecting a variety of samples for analysis back at the lab in College Station. The opportunity for hands-on collection added to the excitement of our developing project.

The physical care of samples is vitally important in preparation for obtaining optimal test result quality. Consequently, we faced a myriad of challenges in handling them in a manner which preserved their integrity and facilitated a successful work-up. Ice chests, baggies, a variety of test tubes and plenty of Sharpies were included on our materials list.

The questions we try to answer with the samples are many-fold. First and foremost, is the assessment of the health of the animals and the establishment of "normal" parameters for each test. There is ample data available for domestic sheep but desert bighorns are different enough to require their own norms in order to be best understood. We must have a starting point in order to evaluate the significance of any changes in the future.

Our protocol eventually centered on obtaining five different sample types: blood, feces, hair, ticks and nasal swabs. Blood samples were analyzed for hemoparasites and complete blood counts (CBC) along with differentials of the white blood cells (WBC). Serum was used to perform a chemistry panel which assessed enzymes important to liver and cardiac health along with kidney function. Other parameters measured from blood samples include those influenced by environmental conditions (range conditions) such as selenium, iron, sodium and potassium, all important in many biological processes in the body. Endocrine hormones can also be measured from serum samples. Of particular interest are the metabolic "thyroid" hormones, T3 and T4. These hormones help to up-regulate and down-regulate the sheep's metabolism. Other interesting hormones include those associated with pregnancy. In sheep, these can be detected after day 30 days of gestation. Knowledge of pregnancy rates and relating that to range conditions over the years may influence management decisions on relocation and habitat assessment. Fecal samples were another part of the collection. These were assessed for the presence of worms and their eggs, resulting in a corresponding "worm-load" in each animal.

TPWD Veterinarian Dr. Bob Dittman, DVM drawing a blood sample

Ticks were also collected for identification. Interestingly, very few have been collected over the years indicating either very few in the region and/or great sheep "hygiene". There may be other factors such as the very dense hair along with the types of oils in the skin though this needs more research before any conclusions can be drawn.

There are many aspects of this project that make it rewarding. The excitement of directly handling these majestic animals in their natural environment is indescribable. Knowing that we are helping to preserve one of nature's most majestic creatures and one of Texas' rarest mammals, makes this an opportunity that draws me back year after year.

Check facebook.com/texasbighornsociety for more photos and videos!

Dr. Scott Jacques, Ph.D., head of Diagnostic Endocrinology at the Texas Veterinary Medical Diagnostic Laboratory

STATE OF THE HERD

Texas Parks and Wildlife Department's Annual Desert Bighorn Sheep Survey Results

By Froylan Hernandez

Since the early stages of desert bighorn restoration efforts in Texas, the Texas Parks and Wildlife Department (TPWD) has had the good fortune of having conservation partners, hunters, outdoor enthusiasts, dedicated landowners, committed individuals, and loyal volunteers who share the passion for bighorn sheep and all things wild. Without their support, bighorn restoration would have been nearly impossible. This has been epitomized in the last several years.

From December 2010 to January 2014, essentially the past 4 years, nearly 250 bighorns have been captured and translocated to mountains which have not seen sheep in over 50 years. These ranges include the Bofecillos Mountains of Big Bend Ranch State Park (BBRSP), 9 Point Mesa in southern Brewster County, and most recently Capote Peak which forms part of the Sierra Vieja Mountains.

Despite extremely dry environmental conditions following the first translocation as well as initial losses (e.g. predation, natural death, etc.), the BBRSP bighorn herd has adjusted well and appears to have stabilized. The last 2 surveys (August 2013 and 2014) reported lamb crops of nearly 80% and 60%, respectively. A total of 56 bighorns were counted in 2013 and 51 in 2014. We are certain we missed several within BBRSP as well as others in Mexico. While there has not been a dramatic increase in bighorn numbers, there has been no noticeable decline either. We are optimistic that the BBRSP bighorn herd will gradually start increasing in the coming years.

LOCATION	RAM AGE CLASS				TOTAL			TOTAL		RATIOS		
	I	II	III	IV	RAMS	EWES	LAMS	SHEEP	GROUPS	M	: 100 F :	L
BAYLOR MOUNTAINS	4	7	4	14	29	68	21	118	26	42.65	100	30.88
BEACH MOUNTAINS	11	15	9	31	66	94	53	213	36	70.21	100	58.38
BLACK GAP / BREWSTER COUNTY	5	8	5	11	29	52	29	110	27	55.77	100	55.77
BIG BEND RANCH STATE PARK	3	5	0	2	10	26	15	51	13	38.46	100	57.69
CARRIZO MOUNTAINS	2	4	0	4	10	7	4	21	7	142.86	100	57.14
EMWMA	0	22	21	41	84	63	27	174	N/A	133.33	100	42.86
SIERRA DIABLO MOUNTAINS	4	28	22	63	117	246	115	478	117	47.56	100	46.75
VAN HORN MOUNTAINS	0	3	1	3	7	9	7	23	3	77.78	100	77.78
EAGLE MOUNTAINS	0	0	0	2	2	7	4	13	2	28.57	100	57.14
9 POINT MESA	0	3	2	6	11	10	1	22	10	110.00	100	10.00
TOTALS	29	95	64	117	365	582	276	1223	241	62.71	100	47.42

The 9 Point bighorns have fared rather well since their release in December 2012. Movements to neighboring Santiago Peak, approximately 13 miles to the north, have been exhibited by some rams, as expected, though they tend to come back to 9 Point. Also, some bighorns have gone back to their capture site at Elephant Mountain. Those collared bighorns are captured by the Texas Bighorn Society web cameras at Elephant Mountain on occasion. There have been other bighorns on 9 Point that cannot be accounted for. This suggests there is some emigration/immigration occurring… and the bighorns are doing exactly what the bighorns are going to do. One potential source is Elephant Mountain about 26 miles to the north. Another source could be the Persimmon Gap area approximately 15 miles west of 9 Point and on the northern end of Big Bend National Park. The collars on some of the 9 Point bighorns are scheduled to drop by Jan 2015. With a good collar retrieval rate, we hope to get a clearer picture of these co-minglings.

The Capote Peak bighorns seem to have settled down from their transplant in Jan 2014 and are making good use of the area. A few bighorns have moved off of the Peak and onto a neighboring Escondido Peak less than 10 miles to the south, but still in the Sierra Viejas. Others ventured to small foothills across the flats to the west about 5 miles and spilt their time between there and Capote. A foot survey was conducted on Capote in June 2014. Almost 75% of the translocated bighorns were accounted for and the lamb crop resulted in less than 50%. Although not high, it was comparable to lamb crops in other areas. Additionally, about 40% of the ewes were 3 years old or less, which were either not pregnant or possibly aborted due to capture stress because of being "first-timers" (pregnant). Age and "first-timers" likely influenced the lamb crop.

TPW district biologist Mike Janis untangling a ram from a fence. The crew noticed he was in trouble from the air.

Results

Overall, the Texas bighorn population is on the rise. Yearly bighorn surveys were completed at the end of August 2014 yielding a count of 1,235 bighorns and a lamb crop of 47% (Table Pg.22). However, the count does not include the Capote bighorns. Therefore, the corrected count would approximately be at least 1,280 bighorns.

The future is looking bright. Bighorn populations in various mountain ranges are found in healthy numbers, which presents capture opportunities. We hope to be able to answer the door when opportunity knocks and continue transplanting bighorns to ranges which have been void of bighorns and continue expanding by stocking their historical range. We also intend to transplant bighorns into existing herds to augment populations as needed.

Desert bighorn restoration in Texas will continue moving forward with cooperation, support and partnerships always a vital part of the restoration effort and critical to the success of the program.

Curious sheep looking back at surveyors.

ALTIMUS ADVENTURES


Maddie Demaske
TEXAS| June 2011


Tucker Ribman
TEXAS | Feb 2013


Jason Bleyens
WYOMING | Oct 2011


Des Woods
TEXAS | Jan 2011


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Texas's Desert Bighorn Sheep Lose An Old Friend:

A Dedication to Jewell "Mama Jewell" McAdoo Lutich

By Jack Bauer

The immediate family survivors of Jewell McAdoo Lutich hosted the Texas Parks and Wildlife Bighorn Sheep Program staff (past and present) and Trans Pecos Ecosystem Project staff and a few Texas Bighorn Society volunteers at the old McAdoo Ranch bunkhouse to pay homage to genuine western pioneer, rancher and wildlife conservationist Mama Jewell Lutich. Her life and accomplishments were honored with the presentation of a desert bighorn sheep plaque-and-bronze to Jewell's daughter LeLois Roosevelt by TBS President Kathy Boone. Other family members present, or in memory, included Reese Lutich - Jewell's deceased son; Paula Lutich - Reese's wife; Scott Roosevelt - LeLois's husband; and, Shelby Whitfield - Jewell's great granddaughter and LeLois's granddaughter. The family will affix the memorial to Jewell's gravestone in the McAdoo Family cemetery located near the remains of the original McAdoo ranch house.

Following the dedication, many traveled to a portion of the ranch frequented by desert bighorn sheep to view the wildlife. Back at the bunkhouse, ranch hands prepared ribs on the grill. The Lutich family served all a wonderful supper. Our thoughts were with Mama Jewell.

Thaddeus Sibiscus McAdoo (1833-1912) purchased property in the Sierra Diablo Mountains at Sierra Blanca in the late 1800's where he pursued raising a family and ranching. Two family generations later, Jewell McAdoo was born on May 1, 1925 to J. Vivian McAdoo (1890-1971) and J. Jewell (1897-1995). Jewell grew up on the family ranch in Sierra Blanca, learning an amazing work ethic, which she imparted to her children. She continued the heritage of the American rancher, and she lovingly and unselfishly cared for her mother in her mother's later years. Jewell survived two husbands, "Papa" George Lutich and "Grand Tom" Waddell. Mama Jewell died January 7, 2014 after spending her life ranching with her husbands and raising her family on the ranch as her predecessors had done.

Sierra Diablo Wildlife Management Area (SDWMA) was purchased in 1946 by the State of Texas that lies adjacent to the McAdoo/Lutich ranch property. The facility was purchased to restore desert bighorn to the Sierra Diablo Mountains. Jewell loved all the wildlife of Sierra Diablo Mountains and witnessed the initiation of restoration efforts of desert bighorn sheep at SDWMA. Jack Kilpatrick, notable wildlife biologist at SDWMA and sheep program leader in the 1970's, noted his impressions of Jewell Lutich.

Kathy Boone, TBS President, looks on as Clay Brewer, TPWD biologist addresses the gathering.

"I really did not get to know Jewell until the summer of 1974. She came over to the management area one hot day…and asked if I would drive over the ranch with her and observe mule deer. This we did for several hours and saw lots of deer. Jewell took great delight in showing me where she and her father had observed a group of bighorn rams descending off the Diablo rim into Victorio canyon in years past. As we were heading back toward the old McAdoo Ranch homestead, later in the afternoon, we observed a bighorn ewe heading back toward the rimrock along the fence that was there. She had evidently been down to the dirt tank near the corrals in search of water. The tank, however, was dry at the time. This ewe was from the first release of sheep at the old brood pens near the Sierra Diablo Headquarters in 1973, and it was plain to see she was craving a drink of water. This was the first time Jewell had seen any of the released sheep, and her excitement was evident. Right then and there we decided to establish a drinker at the site where we saw the ewe. We scrounged up a small galvanized water tank..., and by the end of the next day, we had water in that location….From that day forward Jewell and I were partners on everything needed for the bighorns, including controlling the mountain lions populating Victorio Canyon…"

Jewell's descendants: Shelby Whitfield, great granddaughter; Paula Lutich, daughter-in-law; LeLois Roosevelt, daughter

Like Jack Kilpatrick acknowledging the value of his neighbors partnering in the chores of managing wildlife in the Sierra Diablo Mountains, the biologists that followed have nurtured the relationships of the area landowners to protect and conserve the wildlife resources living there. The desert bighorn have been successful in growing their population to the point that the sheep utilize habitat on all private landowner's property adjacent to Sierra Diablo WMA and beyond.

Doctor Red Duke is the person primarily responsible for the development of the Texas Bighorn Society and instigated the first work project - building the brood pens at Sierra Diablo Wildlife Management Area. He remembered those months of building the pens and meeting Mama Jewell:

LeLois Roosevelt and Kathy Boone with the bronze bighorn sculpture

"I first met Jewell Lutich in the spring of 1982 at the Sierra Diablo Wildlife Management Area when a small group of individuals who shared a sincere interest in the status of desert bighorn sheep had gathered to consider the creation of a program that would repopulate bighorn to their entire native Texas habitat. Among those present was a lady that I did not know nor understand what interest she had in the issue at hand. It was not long before I knew answers to both of these questions. Jewell loved these sheep and I had met a new friend, a very special and unique lady. Fortunately, for me, we seemed to understand each other and shared many common interests, especially desert bighorn sheep….Through the months of construction of the pens, I had the privilege of getting to know many of Jewell's family. This was for me a unique opportunity that I cherish. My admiration is boundless."

Scott Roosevelt, LeLois' husband; Clay Roberts, TPWD biologist; Mark Garrett, TPWD Trans-Pecos Ecosystem Project Leader

In 1986, the first landowner hunting permit granting rights to legally hunt desert bighorn sheep in Texas since 1903 was presented by the Texas Parks and Wildlife Commission to the Lutich Family after Texas Parks and Wildlife sheep surveys demonstrated that mature rams and a mature population of bighorn existed on the Lutich property. In January 1987, at the Foundation of North American Wild Sheep Convention in Nashville, Tennessee, TBS member Doc Thurston purchased the Lutich permit for $60,000.Jewell will be missed.

The Texas Bighorn Society is very proud and honored to have been a part of the partnership between the Lutich/McAdoo family and Texas Parks and Wildlife in wildlife restoration and conservation in the Sierra Diablo Mountains.

Tom Moore

Tom Moore, former TPWD biologist, holding a desert bighorn sheep skull
Photo courtesy of TPWD

Tom Moore passed away at the age of 91 on July 21, 2014. He was born on December 18, 1922 in Floresville, Texas to Isaac Henry Moore and Sallie Jefferson Moore. He moved to Uvalde as an infant. He was a direct descendant of Thomas Jefferson and Julia Dent Moore.

Tom was preceded in death by his parents, his brother Ike Henry Moore who was killed in World War II, his sister, Ruth Surber, and a daughter, Jane Hampton.

After completing high school, Tom enrolled at Texas A&M University but his studies were interrupted when he joined the Air Force. After receiving an Honorable Discharge, he returned to A&M where he earned a Bachelor's degree in Wildlife Management. Tom was employed by what was then Texas Game, Fish, and Oyster Commission, and which later became the Texas Parks and Wildlife Department. He was a wildlife biologist working on the white winged dove program in South Texas, trapping and transplanting deer and turkey at the Aransas Wildlife Refuge. In 1949 Tom worked on the Trans-Pecos Game Management Survey in Alpine and also worked on a scaled quail project in El Paso County. With a purchase of Black Gap Wildlife Management Area, he became manager for four years during which he also trapped mule deer and antelope for restocking, eventually becoming the project leader for the Trans-Pecos Region. He also trapped and moved desert bighorn sheep from Arizona to Texas.

In 1962 Tom moved to Rockport and was named Wildlife Supervisor of the South Texas Region and in 1968 was promoted to Regional Director, Region 5, with responsibility for overall operation of all 5 department functions. He served in this capacity until 1972 when he moved to Austin as Chief of Fish and Wildlife Planning. In 1974 he was named Administrative Assistant to Fisheries Division Director and in 1976 was promoted to Chief of Costal Fisheries Branch. He retired as Chief of Staff.

Tom's diverse experience lead to his selection as the State Designee to the Gulf of Mexico Fishery Management Council. In this role, he assisted in the promotion of plans to conserve and protect the gulf species of fish and shellfish outside the state waters. He was made an honorary citizen of Georgia by Governor Wallace.

Tom is survived by his wife of 59 years, Phyllis Moore, a son Thomas D. Moore, daughter-in-law Gwen, 2 grandsons, Thomas Hampton and Zachary Moore, 2 nephews, Henry Moore and James Surber, and a niece Sally Allen.

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We'd love to hear from you!
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