

January 2017

# THE BOOMER

Quarterly Newsletter of the Friends of Attwater Prairie Chicken Refuge

Volume 5 issue 3

## Message From The President

Dear Friends

We need your assistance and support. As many of you know, our ability to acquire corporate support is often directly attributable to our membership numbers. Our ability to garner foundation and charitable organization support is directly attributable to our professionalism and our ability to provide properly audited financial documentation.

Properly audited financial documentation usually means those financial documents, which have been audited and certified by a CPA.

Since the Enron scandal, CPAs have been held finan-

cially accountable for errors and failures associated with organizational financial reports. Thus, CPA liabilities have increased significantly and their fees have increased in like proportion to their liabilities.

It is incumbent upon us to raise the funds to hire professional expertise necessary to satisfy the requirements of foundations and charitable organizations and qualify for grants.

Please consider a membership in your Friends group. Please fill out and send in the attached membership application form, at your earliest opportunity.

In addition, please consider purchasing an

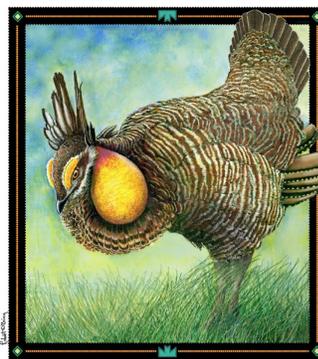
### "Attwater's Forever"

t-shirt, which will be available on our website on April 1, 2017. The price is \$25 plus tax and shipping. The shirt will also be available at the 2017 Attwater's Prairie Chicken Festival.

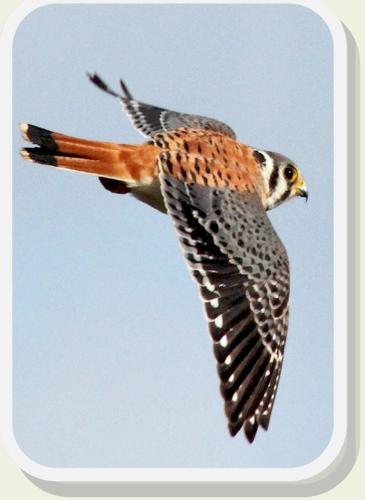
As a good man once said, "failure is not an option."

Thanks

**Gary Woods, President**



Attwater's Forever



Above: American Kestrel, a winter visitor at the refuge. USFWS Photo

## Inside this issue:

|                          |   |
|--------------------------|---|
| President's Message      | 1 |
| Employee Spotlight       | 2 |
| New Auto Tour Route Open | 3 |
| APC Update               | 4 |
| Rebecca Says Good-by     | 7 |
| Biologists Recognized    | 7 |
| New Freezer Installed    | 8 |
| Houston Zoo Event        | 8 |
| Become a Member          | 9 |

## Our Mission:

The mission of the Friends of Attwater Prairie Chicken Refuge is to support the purpose and objectives of Attwater Prairie Chicken NWR and promote the recovery of the Attwater's prairie chicken and the Texas native coastal prairie ecosystem for this and future generations.

## Did you know?

- The American Kestrel is the smallest falcon in North America. Weighing 3-6 ounces, a small kestrel weighs the same as about 34 pennies .
- Kestrels can see ultraviolet light – colors that are invisible to the human eye .

Friends of Attwater Prairie Chicken Refuge, P.O. Box 212 Eagle Lake, Texas 77434



# Employee Spotlight

## David Littman

Administrative Technician

We want to welcome David Littman to the Refuge family. David joined the Attwater staff in September of last year as an administrative technician. David grew up in Houston and has found his way back home to Texas, after a 20 year career in the U.S. Army. His career took him all around the country and included three tours in Iraq and one in Kosovo. He and his wife Kathy are still finalizing their move to Texas. They have a son who has followed his dad's footsteps into the Army.

### 1. What influenced your decision to choose a second career with the Fish and Wildlife Service ?

I have always enjoyed the outdoors, but while we are trained in the Army to respect nature and make the environment primary consideration when we plan operations, we were never given time to smell the roses. My primary interest in employment following the Army was a job in which I could learn, have a varied daily experience, and to make a difference. The chance to work outdoors and with an endangered species, sealed my interest in joining the Fish and Wildlife Service.

### 2. Like most of the Refuge staff, your duties may vary widely on any given day and you are not a typical administrative technician. In addition to your administrative duties, what are some of the other tasks that fill your day ?

One of my most enjoyable tasks is interacting with visitors coming into the visitors center as that is a particularly enjoyable break from the computer. I also enjoy getting out on the refuge to help with projects, although I do sometimes arrive a little later than planned as I often stop to take photographs of interesting birds and other animals that I encounter along the way. I have a goal to get an excellent picture of one of the many kestrels on the refuge.

### 3. What are your impressions of the Fish and Wildlife Service?

I am impressed with the overall mission. We have what I consider a noble goal at all of the refuges, and while we are not focused on outreach, everyone I have met will gladly drop what they are doing to aide a visitor in learning something new or sharing in the experience of their refuge. I have yet to encounter anyone with the proverbial "bureaucracy" mindset , which makes this one of the most enjoyable workplaces I have ever experienced.



*Above: David Littman greets visitors with a smile*

*Cont. on P. 3*

Cont. from page 2

**4. You seem to have a natural interest in birds and other wildlife. Do you have any favorites at the refuge so far?**

I hate to sound like a typical novice birder, but so far my favorites have been the crested caracaras, the white-tailed hawks, and the meadowlarks. I especially like the meadowlarks since their flight very much reminds me of an F-14 Tomcat in profile.

**5. What do you enjoy most about your new job?**

I very much enjoy the variety in what I do. I am not confined to a desk, and I am learning so much about the birds, about maintenance, about the requirements to run a refuge, and honestly, the people I meet everyday. But overall, I most enjoy that I go home each day knowing I've made a difference and helped to maintain a bastion of what part of the state looked like generations ago.

*Thank you David , welcome aboard and thank you for your service.*

## ***New Auto Tour Route Opens***

### ***Attwater Prairie Chicken National Wildlife Refuge has a new auto tour route!***

The Auto Tour Route begins at the Refuge Headquarters and Visitors Center and makes a five mile loop that will take visitors through the heart of some of the best native coastal prairie habitat on the refuge.

There are some new features on the new route that visitors will want to see. A new observation platform about halfway around the loop offers a grand view of thousands of acres of prairie as well as interpretive panels where visitors can learn about prairie management, invasive species, and the Attwater's Prairie-Chicken. There is also an active booming ground near the new alignment that may reward early risers with a glimpse of booming prairie-Chickens at sunrise. Visitors hoping to see Prairie-Chickens should drive slowly and remain in their vehicles for the best viewing opportunities. Many birds, including the Attwater's, are not afraid of vehicles so they make effective "moving blinds" for bird watchers and photographers.

Before and after your tour, be sure to stop in at the Refuge Headquarters and Visitors Center, during business hours, for the latest information and to share your sightings in their wildlife log book.



*Above: The new observation platform on the new auto tour route is totally accessible*

# APC UPDATE

## Keeping Up With The Attwater's

**Mike Morrow, Wildlife Biologist**  
**Attwater Prairie Chicken National Wildlife Refuge, Eagle Lake, Texas**

In some of my previous writings, I have spoken about monitoring survival of Attwater's prairie-chickens after release, and about monitoring nests and broods. Some of you may have wondered how we go about probing into the private lives of prairie-chickens. There are a number of tools available to scientists which allow them to obtain information about animals in their natural environment. These run the gamut of technological complexity ranging from simple observation, often with the aid of binoculars or spotting scopes to tracking with the aid of satellites. However, just "simply" viewing animals or their habitats can involve some pretty sophisticated technology such as refined optics, motion activated cameras, night vision scopes, or infrared cameras. These devices may be hand-held, positioned to operate autonomously in the animal's habitat, or mounted on various mobile platforms (including aircraft) which allow the observer to view images of their subjects directly. There is tremendous value in being able to do that, but obtaining that sort of information has some pretty significant drawbacks: (1) the observer, or at least the recording device, has to be close enough to the animal to be able to "see" it; (2) if the observer or recording device is that close, then the potential exists for altering the animal's behavior; (3) even if you could observe an animal for a short period without affecting its behavior, it would be virtually impossible to follow that animal around continuously. To overcome some of these drawbacks, scientists give up the ability to observe an animal directly, instead opting for indirect and/or remote monitoring. For example, one could survey mammal tracks, or collect other evidence of a critter's presence such as its waste products which might provide information on food habits or abundance. Or animals can be marked in various ways which ultimately can be used to provide estimates of movements or various measures of population demographics. An example of this would be bird banding which has provided invaluable information on migration corridors, survival, longevity, etc. of many bird species. Markers of this type are passive in that they require the animal to be re-sighted or captured so that the tag information can be recorded.

*Cont. on Page 5*



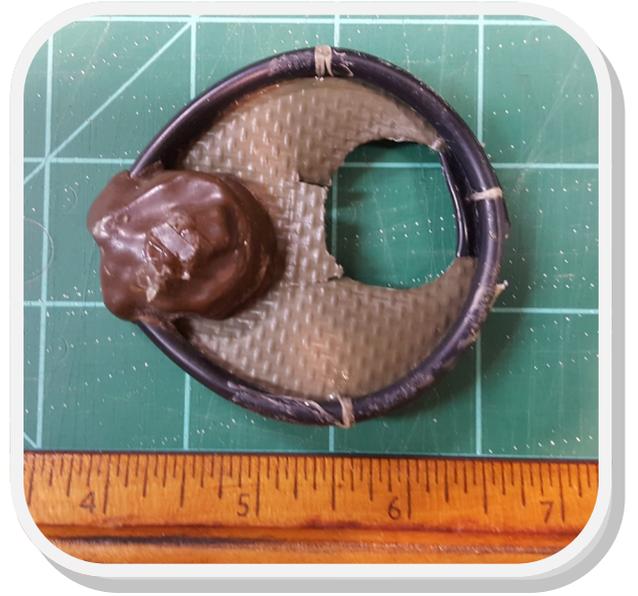
*Figure 1. Recently released juvenile Attwater's prairie-chicken outside an acclimation pen "posing" to show off its radio transmitter (APCNWR staff photo).*

**You can help with vital RIFA suppression by supporting our "Fire Ant Control/Brood Survival Fund"**

*APC Update Cont. from p.4*

Other markers are active in that they provide information without seeing or recapturing the animal. Tags that broadcast a radio signal or communicate with a satellite fall into this category. It is this sort of marker that we use to gather information on Attwater's used to guide management actions.

Radio telemetry has been one of the “go-to” tools of the trade for the wildlife profession for over 50 years. The basic wildlife telemetry system is pretty straight forward – it consists of a radio transmitter attached to the animal, and a receiving system monitored by the researcher. Transmitters can be manufactured in a variety of shapes and sizes, and some can even be surgically implanted inside the animal (e.g., snakes, fish). Transmitter size depends on balancing three factors. First, and of paramount importance is the size of the research subject. Of course the bigger the animal, the larger the transmitter can be without significantly influencing survival or behavior. Secondly, the longer you want the transmitter to function, the larger the battery has to be to provide power for the desired length of time. Power output of the transmitter either in signal strength or pulse rate also influences how big the battery must be. A powerful signal makes it easier to find animals that move long distances, and a fast pulse rate makes it easier to determine precise locations for active subjects. The battery makes up the majority of the radio's weight, so scientists often have to compromise between longevity of the radio and power output to end up with a package that their subject can safely carry. A general rule of thumb is that radios should weigh less than 2–3% of the subject's weight. So for a 200 pound deer that would be 4–6 pounds; for an adult male prairie-chicken weighing just over 2 pounds, the transmitter should weigh an ounce or less. Finally, the researcher must make a decision about how the transmitting antenna will be configured. Signal strength is optimized if the antenna is exposed and is a specified fraction of the radio wavelength. However, sometimes optimal antenna configurations are not appropriate if they adversely affect the animal's behavior or survival.



*Figure 1. Radio transmitters used on Attwater's prairie-chickens. Typically they weigh no more than 20 grams (less than 3/4 ounce). The electronics and battery are coated with epoxy for protection.*



*Figure 3. Two male and one female Attwater's prairie-chickens at the Attwater Prairie Chicken NWR. Note that all three are wearing radio transmitters.*

Transmitters can be attached to various parts of the body, depending upon the animal and the researcher's experience and/or preference. For example, transmitters have been attached to prairie-chickens as backpacks (between the wings), as rump mounts, as necklaces, or as ponchos. We have chosen to use radios mounted on ponchos which fit around the prairie-chicken's neck, and positioned so that the transmitter stays under the feathers as much as possible over the birds crop (Figures 1–3). I have seen prairie-chicken crops which contained 80 grams of food, so they are used to having fluctuating weight in that area of the body.

*Cont. on P. 6*

**Cont. from P. 5**

Transmitters are selected to keep the transmitter to body mass ratio below 3%. So for a 300 gram chick, the transmitter would weigh less than 6 grams, whereas for adult birds (typically over 700 grams) we have used 18–19 gram transmitters. We have also opted to use packages with the transmitting antenna incorporated into the poncho to prevent the wings from hitting the antenna. While this diminishes the signal strength, in our opinion it is a better configuration for the bird.

The pulsed transmission from the bird's radio is received by a radio set (receiver) typically attached to a directional antenna. This antenna may be hand-held to allow close approach to the transmitting radio (e.g., to examine the animal's remains after death or to find its nest in the case of a bird), or it may be mounted to a vehicle (including aircraft) to permit more rapid and complete coverage of an area. We use both systems (Figures 4–5). The directional antennas enable determining an animal's location either by homing (direct approach of the transmitter) or by triangulation (obtaining 2 or more bearings on the animal). Typically, each prairie-chicken is assigned a unique frequency, so receivers must be capable of "tuning" to those frequencies. The receivers we use theoretically are capable of tuning to 4,000 different frequencies, although practically it would be difficult to maintain separation for more than 400.



**Figure 4. Vehicle-mounted directional antenna system used to track Attwater's prairie-chickens at the Attwater Prairie Chicken NWR (APCNWR staff photo)**



**Figure 5. American Conservation Experience (ACE) intern Mandy Belamy demonstrating use of hand-held directional antenna. The brown object at Mandy's side is the receiver which translates the transmitter's signal into an audible, pulsed tone (APCNWR staff photo).**

In addition to monitoring an animal's movements, wildlife transmitters can be equipped with sensors that monitor mortality, activity, temperature, and heart rate, among other things. Entire books and countless scientific papers have been devoted to the application of telemetry to wildlife study. With regard to Attwater's prairie-chicken recovery, the use of telemetry since the 1970's has allowed us to determine movements and habitats used by wild as well as released captive-reared birds. Monitoring survival has enabled us to fine-tune rearing and release protocols to improve post-release survival of captive-reared Attwater's, and it was the application of telemetry that allowed us to discern that fire ants were adversely impacting Attwater's brood habitat by reducing invertebrate abundance. In short, in the absence of radio telemetry we would have been groping in the dark for answers. We may ultimately have arrived at the same conclusions, but it surely would have taken much, much longer.

# Rebecca's Good-bye

*After eight years at Attwater Prairie Chicken National Wildlife Refuge, refuge biologist Rebecca Chester will be applying her talent and dedication to the recovery of another endangered species, the masked bobwhite quail, Rebecca has accepted a position at Buenos Aires NWR, south of Tucson, AZ on the U. S., Mexico border and will be leaving for her new post soon. She has been a frequent contributor to the BOOMER and was invited to offer a few words of farewell to our readers. We want to thank her for her past efforts, not only for this publication but for the recovery of the Attwater's prairie-chicken. Best of luck, Rebecca and thank you, The Editor.*

When I arrived here almost exactly 8 years ago, I of course knew of prairie chickens and had seen pictures and heard their booms on wildlife shows. I, of course, also knew they were endangered and, like many endangered species, faced a number of conditions not exactly designed to welcome them back from the brink of extinction. Pretty cool, interesting birds I thought. Little did I know. Over the years, I have decided they are at once the kings and jesters of the prairie. If possession is 9/10<sup>th</sup>s of the law, then there is no doubt who the prairie really belongs to. While other birds leave for the summer, snakes retreat into their holes for winter, and coyote slink back to the wooded areas during the day, the prairie chickens are there. All the time. 24/7/365. Fulfilling every aspect of their life history in a once-vast grassland estate that would make any king proud. In my opinion, they are also the most comical birds on the landscape. Just spend a few hours watching them, listening to their large array of amusing calls, and in my case, working around them year-long and you can't help but appreciate their entertaining habits and social interactions.

I have very much enjoyed working with the birds, for the birds and for their prairie habitat. And the number of other people that do the same has been impressive. From the staff, interns and volunteers at the refuge to the folks at the captive breeding facilities to the Friends group and number of other partners to the regional USFWS staff; the amount of effort and dedication poured into every single task is inspiring to say the least. I intend to carry with me that same level of tenacity to find ways to improve the outlook for the masked bobwhite quail. I am thankful to have had this opportunity and to have met and worked with so many fantastic people along the way. I may not hear the wild cackling during the spring booming season, but rest assured it will be playing in my head. Or maybe I'll just have to show back up at some point to enjoy it in person. Attwater's Forever. *Rebecca*



## **Refuge Biologists' Work Recognized**

Refuge biologists Dr. Mike Morrow and Rebecca Chester were recipients of the John R. Morgart Award for Scientific Publication at an Award ceremony held December 1, 2016 in Albuquerque, NM. They were recognized for their paper, "Indirect Effects of Red Imported Fire Ants on Attwater's Prairie-Chicken Brood Survival". The Morgart Award is presented annually by the Southwest Region of the Fish and Wildlife Service to recognize excellence in scientific publication. Congratulations to Both.

## Walk-in Freezer Ready for 2017 APC Releases

Through a grant received last year from The USFWS Coastal Program, the Friends were able to acquire a walk-in freezer for the refuge. This large capacity, walk-in freezer will allow for frozen vegetables, used to feed APCs awaiting release in acclimation pens, to be delivered to the refuge rather than refuge staff picking them up. Previous storage capacity consisted of multiple, low capacity units which precluded delivery because of minimum order requirements. Refuge delivery will save 3-4 hours per week of valuable staff time. Previously the freezers were located in space not easily accessible with a vehicle requiring the inefficient use of staff time during stocking and food preparation. The new unit will allow vehicles to pull up to the door. This large capacity unit will allow for enough stock to be kept on hand such that any event, natural or man-made; that may result in stopped delivery or interruption in obtaining critical food needs; from having an adverse impact on birds under staff husbandry .



*Above: Technicians from Chef Mart Restaurant Supply , in Houston, install the new walk-in freezer at the refuge.*

We would like to thank Misters Al Salaymeh and Dean Salaymeh with Chef Mart Restaurant Supply for their consideration and efforts of their staff for working with us during the installation.



## Member Mornings at the Houston Zoo

Saturday April 1, 2017 at 8:30 am the Houston Zoo will present their monthly Meet The Keeper Talk on the Brown Education Center lawn. The topic will be the **Attwater's Prairie –Chicken**. You will hear from one of the Zoo's experts and gain professional insight about the featured animal. The presentation is part of their Member's Morning monthly event. Member's Mornings are open exclusively to Zoo members and allows you to enter the Zoo one hour before opening to see keepers prepare enrichment and animal areas all around the zoo. These events are always FREE for Zoo Members and no need to RSVP. If you are not a Zoo Member, please consider becoming one, attending these special events and supporting one of our recovery partners.

# Membership Application

Yes, Please enroll me as a Friend of Attwater Prairie Chicken Refuge

New Membership  -or- Renewal  Date: \_\_\_\_\_

Name (s) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email \_\_\_\_\_ Phone \_\_\_\_\_

Annual: \$15  Student or  Senior (62 or older), \$20  Individual, \$30  Family

Make checks payable to: Friends of Attwater Prairie Chicken Refuge and mail to:

Friends of Attwater Prairie Chicken Refuge

P. O. Box 212

Eagle Lake, Texas 77434

**Save the Date** The 2017 Prairie Chicken Festival, will be held April 8-9 at the refuge.

## Subscribe to our Electronic Newsletter

Is this the first time you have read **THE BOOMER**? Was it forwarded to you by a third party? Would you like it sent directly to your email address so you never miss an upcoming issue. Just send an email to

[oldpartnersguy@gmail.com](mailto:oldpartnersguy@gmail.com)

with I want the Boomer in the subject line and we will add you to the mailing list.

Interested in reading back issues?

Visit [www.attwater.org](http://www.attwater.org) and you will find them archived on the publications page.

***“Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction .”***

*E. O. Wilson*