



THE BOOMER

Quarterly Newsletter

Volume 7 Issue 1

Message From The President

Friends:

We are adding a number of highly talented and industrious board members at our annual meeting scheduled for noon on September 22, 2018 at the Attwater Prairie Chicken Refuge. In addition, our founding treasurer, Jane Meldahl, is again being nominated for treasurer, and we will be presenting several awards for exceptional service. Please plan on either attending the annual meeting, voting electronically or via snail mail.

We are losing three board members, who have assisted us with our efforts to save the chicken. Members-at-Large Carol Davis and Cynthia Lurix, and our irreplaceable treasurer, Robert Smith, are leaving, after years of service to the Friends organization and the chicken. We appreciate their dedication, and wish them well in their future endeavors.

We are in negotiations with Texas Parks and Wildlife to begin administering the Adopt-a-Chicken program that benefits chick

propagation efforts. We expect to have the program available for adopters this year -- the most efficacious way for an individual to help save the chicken. Please check our web site periodically.

And, board members, Eliot Tucker, Sumita Prasad and Ron Jones have initiated and are coordinating special projects to assist the Refuge and the chicken. We applaud their efforts.

Gary Woods, President

Friends of Attwater Prairie Chicken Refuge



APC pre release pen on the prairie

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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.

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

www.attwater.org

Did you know?

- There are 562 NWRs
- The proposed 2019 budget for the NWR system is 473.1 million dollars. Av/ refuge is 842 thousand dollars.
- Cost of an F35 fighter, 94 million dollars.
- Estimated cost of Wash DC military parade, \$91 million.
- Each equals the total, annual budget of 100+ NWRs.

New Birds on the Prairie

2018-APC RELEASE

Michael E. Morrow, Wildlife Biologist, APCNWR

As I write this article, transfer of Attwater's prairie-chickens produced this year by Fossil Rim Wildlife Center, the Houston Zoo, and the Caldwell Zoo is well underway. These three facilities had a great year, hatching a record 828 Attwater's chicks! Of these, 596 (72%) survived until late June to be considered for release at the refuge or on private ranchlands in Goliad County. When all the dust settled, and PMx (the software used to evaluate the genetic relatedness of all the birds in the APC captive program) had spoken, 521 chicks produced this year along with 42¹ adults were selected for release. The first chicks, by then around 9 weeks old, were moved from Fossil Rim to the refuge on July 10. As of the time of this writing in mid-August, we have moved a total of 222 birds from Fossil Rim and 123 from the Houston Zoo. The APC transport trailer (Figure 1) donated last year by the Friends of Attwater Prairie Chicken Refuge, has logged approximately 2,250 miles and 48 hours on the road in the last five weeks!

I have written about the release process in past issues of *The Boomer*. Briefly, birds are placed in acclimation pens at the release site where they are provided with water and a mixture of frozen vegetables which serves to help transition the release candidates from the dry starter ration they received as young chicks to leaves, seeds and insects they will be eating after release. The birds spend approximately two weeks in this acclimation pen, and then the doors are opened to their new lives on the prairie. Although it doesn't usually get much attention, the pre-release acclimation pen is central to the release process. So I thought I would spend a little time describing these pens, their function, and why we use them. Let me start with why we use them. Release of animals from captivity can be broadly classified as either "hard" or "soft".

¹*At this point, you may be wondering why we would consider releasing adults. The captive population is managed to minimize loss of genetic diversity, and to maintain a stable age distribution. So these adults were over-represented in the population from a genetic and demographic perspective.*

Cont. on P3



Figure 1: Birds are loaded into the custom transport trailer for their trip to the refuge and their first prairie experience.

In hard releases, animals are moved from the captive-rearing facility to the release site and immediately liberated into hopefully favorable habitat. For soft releases, animals are held for some period of time at the release site before final release. This holding period could be just a few hours, or much longer. For example, young birds of prey are often “hacked” at release sites for extended periods while they are learning to hunt on their own. In general, survival from hard releases has been very poor, especially for gallinaceous species like prairie-chickens. So when the Attwater’s release program was being formulated, we knew that we wanted to use the soft release method. While we have experimented with different holding times, and different diets during that time, the basic design of the acclimation pens themselves has remained relatively unchanged through the years.

Former Refuge Manager Steve Labuda designed the pen for the first pilot release of 13 male Attwater’s in summer 1995. The exterior of that pen was constructed of chain-link fence panels which were 6 feet high and 10 feet long. Gates were positioned at the corners of the pens, each of which created a 10-foot opening. On the inside of the pen, plastic netting was placed to create a softer surface to cushion the explosive flight of prairie-chickens than the chain-link fence would provide. The top of the pen was covered with soft apicultural netting. Shade cloth “curtains” were suspended at each end of the pens to prevent hard collisions for birds attempting to fly the length of the pen (Figure 2). Three electric fence wires were placed near the bottom, middle, and top of the exterior chain-link panels to discourage climbing predators (e.g., raccoons) from scaling the chain-link and going through the soft netting on top. Metal grating made from “horse panels” were placed under each of the chain-link panels to prevent predators from digging under the fence to gain access to birds inside the pen. The only major modification in pen design through the years has been to add a second top to prevent raptors from grabbing birds through the top after great-horned owls killed several birds in this manner (Figure 3, page 6). While these pens are relatively simple in design and function, a lot of effort goes into construction, starting with selection of the building site. Given that coastal prairies are prone to heavy rainfall events with slow runoff, we first have to find a site that will not flood. Next, we try to select sites that will provide cover comparable to what the birds will be using after release.

Then construction starts with laying the predator grates under the chain-link panels, erecting the panels, attaching netting on the interior and tops of the pens, and finally attaching the electric fences to the exterior of the pens.



Figure 2. Inside APC pre-release acclimation pen at the refuge showing “curtains” used to prevent injuries from collisions during flight.

Cont. on P 6

New Refuge Manager Named

John Magera Assumes the Helm

This summer, after ten years at the Refuge, John Magera was selected as the new Refuge Manager. It will be his leadership that will guide the recovery of this most endangered bird, in coming years. A native Texan (born in Houston), John has spent his entire professional career with the Fish and Wildlife Service. Recently we had the opportunity to learn more about his career, his family and hobbies, and his optimism for returning and even exceeding pre-Hurricane Harvey wild populations for one of the most endangered avian species in North America.

Let's start at the beginning. You were born in Houston. Did you grow up there?

That's a long story! I've lived all over Texas, and in five other states. I might have moved more than any person I've ever met. But all that moving has given me a lot of valuable perspective to draw on. Right now I live with my wife Karin in Columbus, Texas where she teaches high school chemistry. We've been there for the past 10 years, enjoying small town life.

Karin and I met in college. She earned her master's degree in Forestry and wrote her thesis on environmental education. Karin worked for the Fish and Wildlife Service for nearly 10 years as a fire program tech and as an environmental education specialist before becoming a high school teacher. We have three children (Amanda (26), Adam (23), and Allison (18)). We've had a busy summer! Amanda was recently married, our son Adam graduated from college, and our daughter Allison graduated from high school and started college. Karin and I are "empty nesters" for the first time since 1992.

You were a member of the U. S. Olympic Archery Team at the 2004 Summer Olympics. Do you still find time to keep up with the sport and do you have any other outside interests?

Archery has been like a second career of mine for the past 15 years. I've started and managed Junior Olympic archery programs, taken teams to state and national events, coached archers to state, national, and even world championship titles. A few of my students have moved on to the Olympic training center, all while trying to continue competing myself.

Cont. on P 5



Above: Refuge manager, John Magera, explains prairie restoration planting techniques to volunteer Carolyn Sternberg

Cont. from P 4, New Manager

It's been a great ride but I've recently stepped back quite a bit from coaching and running clubs and events to spend more time with my family and re-engage with other interests, but I will always be involved in archery at some level as time allows.

I've enjoyed photography since "the film days" and consider my camera to be one of my most powerful conservation tools. I'm also an avid fisherman and organize a kayak fishing trip twice a year for friends. My interest in hunting from an early age is what led me into the wildlife conservation field. I recently began chasing elk in Colorado every fall. It keeps me in shape. I've also been known to ruin many good walks by playing golf.

Let's talk about your career. Has your work been exclusively with US Fish and Wildlife?

Other than a summer and fall spent working for the Texas Forest Service entomology program, I have spent my entire career with FWS. In fact, I actually began with the FWS before I graduated from college. I was fortunate to be accepted into what was then called the "Co-Op" program and worked a semester and attended school a semester for about two years.

My first duty station was in the summer of 1991 at the Lower Rio Grande Valley NWR. I worked Co-Op positions at Buenos Aires NWR in Arizona and also at the Nacogdoches Realty office of FWS.

Since graduating, I spent six years at the Aransas NWR, four years at Bitter Lake NWR in New Mexico, three years as the manager and sole employee of the then-new Middle Mississippi River NWR in both Illinois and Missouri, and three years as a Supervisory Wildlife Refuge Specialist at the Crab Orchard NWR in Southern Illinois. I arrived at the Attwater's Prairie Chicken National Wildlife Refuge in 2008.

As manager, what are your plans for the Refuge? Have you set new goals for yourself related to the Refuge and APC recovery?

First, let me say that I have known Terry Rossignol since 1993. I have thoroughly enjoyed the past 10 years working with and learning from him. I appreciate the way he managed the Refuge and the APC recovery program and I would consider myself fortunate to have as much of a positive impact on those programs as he has over the years.

My background and personal interest has always been in habitat restoration and management, with a focus on endangered species.

My goals align pretty closely with both Terry's and our biologist Mike Morrow's and are really not difficult or complicated to understand. I prefer to keep things simple. Around here, the Prairie chicken comes first. Everything we do as a staff will focus on the goal of restoring habitat and recovering the Attwater's prairie-chicken.

This opportunity to contribute to the management of a critically endangered species is both exciting and a bit terrifying, but with the team we have I am confident we will succeed.

In an interview in May with Fort Bend Star reporter Joe Southern, you provided an excellent summary of the devastating effect of Hurricane Harvey on the refuge and the APC population. You also expressed some optimism about the potential for the population returning to its pre Harvey level. Are you still optimistic?

Absolutely. My optimism for returning and even exceeding pre-Harvey wild populations is simply based on our previous success. What many people miss when they think about the effects of the previous two year's flooding on APC wild populations is how we were able to triple the population of wild APC's following the unprecedented drought of 2011.

In the five years that followed that drought, the combined efforts of the refuge, our partners (TNC) in Goliad and the captive breeding programs brought the wild population to the highest number in over 20 years. We have the tools and the knowledge to rebuild the numbers and with even reasonable weather conditions, we have the potential to be right back where we were - if not even higher - in just a matter of 3-5 years.

Cont. on P 8

Cont. from page 3, APC Update

The one sentence it took me to describe construction of the pen does not do justice to the amount of effort involved in that process, especially for attaching the netting. Hundreds of UV-resistant zip ties are used to attach the netting to the interior and top of the pen – a job best suited for nimble fingers! All told, it takes approximately 40–50 personnel hours (approximately 1.5 days for a 4-person crew) to construct one of these 30 x 50-ft pens. This year, we constructed five of these pens at the refuge, and The Nature Conservancy constructed one 30 x 100-ft pen in Goliad County. And we try to move these pens to new ground every couple of years or so to prevent potential buildup of diseases or parasites caused by continual use of the same area, and to allow for renovation/recovery of vegetation within the pen.

While the basic design has stayed the same, we continue to tweak construction techniques to streamline the process. Jay Kelso and Kirk Feuerbacher with The Nature Conservancy have been particularly innovative in this regard. At the same time, The Friends Group has engaged University of Texas professor of architecture David Heymann to explore other potential designs that might allow for moving pens to new sites intact, thereby minimizing construction effort. Dr. Heymann obtained a grant and turned this into a project for his architecture students. Additionally, the Sutton Avian Research Center modified a greenhouse frame to serve as an acclimation pen for release of greater prairie-chickens in Nebraska. Whatever the design, the pens all have to perform the same functions: (1) allow birds to recover from the stress of transport to the release site, and (2) start conditioning birds to the habitats they will be using when they are finally released onto the prairie, and (3) keep birds safe during this time. Data show that these functions are not trivial. We have compared 30-day post-release survival for Attwater's held 3, 7, and 14 days in these acclimation pens and have found that survival in 14-day groups is 2 times higher than those held for 7 days, and 4 times higher than those held for only 3 days. Staff who raise Attwater's in captivity were not surprised by this finding. They regularly observe an "adjustment" period in birds after being moved to a new pen or after birds are handled. So, while acclimation pen construction is a hot, sweaty, and often times not very exciting activity, it is a very important cog in the process of reintroducing this critically endangered species to the prairies of coastal Texas.



*Figure 3. APC pre-release acclimation pen on Goliad prairie with double top .
(Photo credit: Aaron Pratt).*



Houston Zoo's APC Recovery Program Establishes A Coordinator Position

In late 2017, the Houston Zoo created a coordinator position for the Attwater's prairie chicken recovery program to provide a consistent, dedicated keeper to the program and named April Zimpel to that position.

April graduated with a degree in Wildlife Science from Virginia Tech University. After internships at the National Aviary and the International Crane Foundation, she assumed a Bird Keeper position at the Houston Zoo in 2012. She began working with the prairie Chicken in early 2013 when she became part of the incubation team, which cares for the eggs before they hatch. She was member of the Egg collection team in following years and was promoted to senior keeper before stepping into the coordinator position.

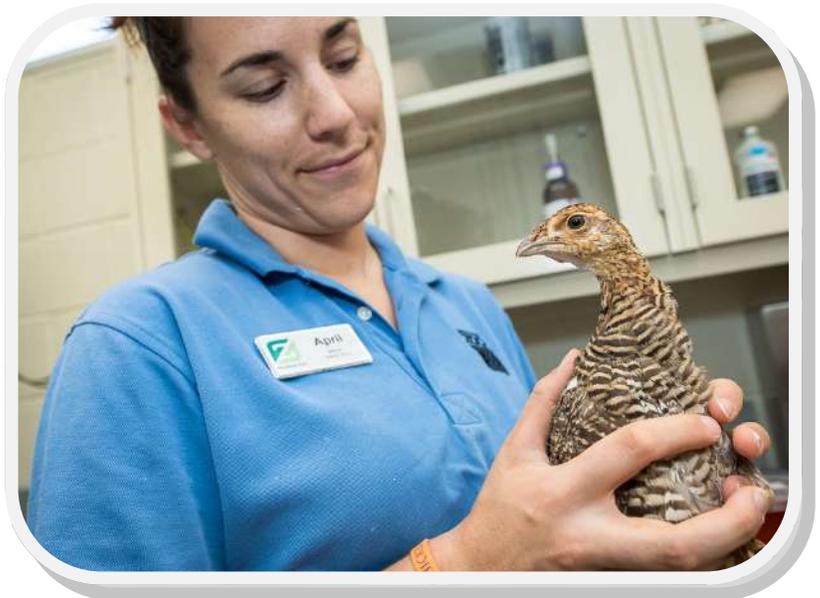
She now works solely with the prairie chicken, managing the breeding flock's care at NASA and acting as lead keeper for chick rearing at the zoo. In addition to animal care, she is also focusing on outreach, conservation education and promoting the collaborative work of all organizations involved in the recovery effort.

Depending on the time of year, April's day is filled with a variety of duties. During the breeding season, she usually starts the day by heading to the zoo's off-site breeding facility located at the Johnson Space Center to care for the adult breeding flock and collect eggs from the nests. Once the eggs hatch at the zoo, she and a team of 5 keepers are busy feeding, cleaning and keeping up with the new chicks as they grow.

The summer is spent scheduling and coordinating chick releases with the USFWS. Birds will either go to Attwater Prairie Chicken NWR or to private lands in Goliad County and bird transfers between breeding institutions.

By the fall, things slow down a bit and she can focus on improving the NASA facility and preparing for the annual cycle to start all over again.

Since 1995, they have raised more than 1,100 birds for release back into the wild. All of this work is accomplished behind the scenes at the zoo. This year, April and the team has cared for 543 eggs and more than 300 chicks as part of their effort to ensure the Attwater's prairie chicken population will recover and thrive for years to come.



Above: April Zimpel examines a young Attwater's prairie-chicken at the zoo's brooding facility in Houston

You also had high praise for the facilities such as Houston Zoo, Fossil Rim Wildlife Center and the Caldwell Zoo that host captive breeding programs. In the interview you were expecting release of 200 to 300 birds. Did the numbers meet your expectations?

Yes. We are expecting to release well over 400 birds at the two release sites this year. The work that staff and volunteers at these captive breeding facilities do is nothing short of remarkable. I wish everyone could see it in person. The dedication and professionalism exhibited by our captive breeding partners inspires me to “hold up our end of the bargain” so to speak, and to have the refuge ready to receive their birds and provide them a place to thrive.

In your Fort Bend Star interview you expressed optimism about the future of the Attwater’s prairie chicken despite their population size. What nurtures your optimism?

First and foremost I am a scientist. I rely on data. Like I said, we now have the data to show that we can recover from setbacks. Optimism might not even be the right word for it because I simply believe that we can not only repeat the post 2011 performance but now exceed it because of the gains in knowledge and experience since then.

Right now the only release areas for APC’s are the Attwater’s refuge and Goliad County. Do you see a day in the not too distant future when other properties could be developed?

I am very hopeful we will be able to identify and begin to prepare additional release sites very soon. I have communicated this goal to other Refuge managers who manage historic APC habitat and they support that goal. Of course it takes resources to fully prepare for and support a release program.

I also hope we do a good enough job with our current release program that other private landowners, like the ones near Goliad, see a role for themselves in the recovery of this species. I know the interest is growing. I hear from other managers and landowners and what they tell me is encouraging.

I want your readers to know that despite a long history of challenges and setbacks with the recovery of the APC, there is reason for hope.

As I told a reporter just days ago, the story of the extinction of the Attwater’s prairie-chicken is 25 years old now. The amount of work that has been done since, to learn about and promote the recovery of this bird is difficult to describe.

Once a person is able to spend some time in the “inner workings” of the recovery program, in all its many steps and dark corners, they usually come away amazed at the incredible passion and dedication of everyone involved.

It is through the sheer will of dozens and maybe hundreds of conservation professionals that we are in the position we are today, poised to rebound from what could have been the end of the road for this species. I am humbled and proud to be a small part of that recovery story.

Tracking Interns Are Moving On

In the May Issue of the BOOMER we introduced the Refuge's two tracking interns, Mandy Bellamy and Gareth Litwiller. Some of you may have met them when visiting the refuge or attending the annual festival. All internships eventually come to and end. Mandy and Gareth have completed their internships and are leaving the refuge. They have been an integral part of recovery efforts at the refuge and their hard work and dedication will be missed by the staff. Gareth is returning home to Ohio and is considering a position with The Nature Conservancy in Indiana. Mandy is headed to Georgia where she will participate in bobwhite quail and rattlesnake telemetry projects. We wish them well in their new endeavors.



Above: Mandy gets up close and personal with an aggressive prairie chicken. Photo by Gareth.

New Transport Boxes Provided

The Friends have provided the refuge with twenty-four additional APC transport boxes. The boxes are used to move birds from the rearing facilities to the release sites. These additional boxes are of the same design as used in the transport trailer and were originally developed in close coordination with refuge biologist, Dr. Mike Morrow. The boxes were developed to keep birds calm in a darkened setting while allowing for sufficient ventilation and to limit possible injury, should the birds suddenly try to take flight in a confined space. To date, no birds have incurred a scalp injury while being transported in the new design. We were able to supply the boxes thanks to financial support from a Friends member and refuge supporter.



Above: Twenty-four new transport boxes wait to go into service at the refuge

Art Contest Scholarship Winner Heads To College

The sixth annual Student Art Contest's top winner and recipient of a \$250.00 scholarship, Addicyn Kunkel, is taking her talents to Texas A&M University. We wish her well and appreciate the note she sent the Friends. Notice of the Seventh Annual contest will be going out to area teachers soon.



Dear Friends of Attwater Prairie Chicken Refuge

I would like to thank you for the \$250 scholarship awarded to me for my Attwater Prairie Chicken logo design. I was very happy and appreciative when I learned that I was selected as the recipient of this scholarship. I plan on attending Texas A&M University and this money will definitely come in handy

*Thank you Again,
Addicyn Kunkel*



"Look deep into the eyes of nature and everything else will make sense"

Albert Einstein



The refuge prairie in bloom. Photography by John Magera.



THE BOOMER

is the official publication of the
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