



THE BOOMER



Quarterly Newsletter of the Friends of Attwater Prairie Chicken Refuge

Volume 2 Issue 4



Message From The President

The Prairie Power Series and Prairie Chicken Week

The Attwater's Prairie-chicken Recovery Plan identifies the loss and fragmentation of the Gulf coastal ecosystem, resulting from a litany of factors, as the ultimate cause responsible for the species decline. The main goal stated in the plan is to protect and ensure the survival of the species and its habitat. The primary methods for reaching this goal include: habitat management, captive and wild-population management and public outreach.

THE BOOMER is a major component of our public outreach efforts. We hope, we are doing a good job of informing our readers of the activities the partners are taking to ensure the survival of the species. The Refuge does an excellent job, of actively managing its prairie habitat for the APC, but the ultimate goal of removing the species from the endangered species list can only be reached with the support of private landowners. The Coastal Prairie Partnership, a nonprofit, collaborative organization whose mission is to help foster a more connected and empowered prairie community in coastal Texas and southwest Louisiana, is presenting the **2014 Prairie-Power Series**. *Cont. on Page 7*



See art contest winners at BOOMING-N-BLOOMING

"Booming-N-Blooming"

The 20th annual Attwater's Prairie Chicken Festival is just around the corner. Put April 12-13, 2014 on your calendar and join us at the refuge. Prairie chicken viewing, walking tours, and van tours, both guided and self-guided. will be offered. This year hear Texas Parks and Wildlife biologist, Jon Hayes' presentation on the interdependence of native prairie and North American grassland birds. For more information about this year's event visit;

[http://www.fws.gov/uploadedFiles/Boomin%20N%20Bloomin%202014\(1\).pdf](http://www.fws.gov/uploadedFiles/Boomin%20N%20Bloomin%202014(1).pdf)

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

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Did you know?

- From an original population estimated at 60,000,000, the bison population had been reduced to fewer than 600 by 1885.
- A bison can consume 30-50 lbs. of feed a day.
- Bison grazing stimulates the growth of prairie plants.

Recovery Partners: The Abilene Zoo

This is the third in our series of articles to highlight the Texas organizations working hand-in-hand to recover the APC.

The Abilene Zoo has participated in the APC captive rearing program since 2000. Ryan King has headed the program there since 2009 after having started as an intern in 2005. He works with a staff that includes two other keepers and 2-3 interns during their busy months when a seven day a week effort is required.

The zoo operates a facility that can accommodate up to nine pairs of birds but they typically house only seven because of limited space for raising chicks. Although their facility is smaller than some, they typically produce 45-60 chicks per year with an astounding high of 141 chicks in 2008, for which they were not prepared. Of the chicks produced, they raise an average of 25-45 birds either for release on the Refuge or to be kept for following year's breeding stock. Ryan hopes to eventually expand and update their facility as it is an important program and has the support of the zoo's administration and board of directors.

The rearing process at Abilene is much the same as with the other Partners. Suitable birds are paired together each year and as with the other facilities, once nesting begins, eggs are collected and replaced with artificial eggs. This stimulates the hens to continue laying. Unlike other facilities, the clutches at Abilene Zoo are placed under domestic hen chickens for incubation rather than placed in an incubator. The eggs are left under the hens almost until full term before they are pulled and placed in hatchers. After hatching they go through a series of different brood boxes and when a proper weight is reached finish in bigger

yards. Ryan says this process works for them and helps them reach their primary goal of producing as many birds as they can. He acknowledges that the work is challenging and recognizing when a bird has a problem and finding a solution is part of the process. He says they have established a system that works really well for their facility, particularly when birds are cleaned, handled, weighed, or moved. He takes pride in providing as many natural items as possible to keep the birds busy and active.

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Photographs for this article were provided by The Abilene Zoo.

At left: Ryan King head of the APC program at The Abilene Zoo, prepares to feed APCs in a breeding pen

Recovery Partners Cont. from P.2

From the very beginning of the captive breeding program breakthroughs have come as a result of hard work and a lot of trial and error. Communication between the various Partners has been important to the program's success. Ryan reports that little things here and there have made a difference. Such things as using a different substrate, adding probiotics to the diet, how you feed, or how and when you handle the birds. One simple change came in 2009. Young APCs are known to have issues with their legs, from curled toes to splaying. In an attempt to create a spot for chicks to strengthen their legs, feather dusters were suspended in the brood boxes in such a way that they almost touched the floor. This simulated a hen and the young birds could push up on the feather duster much the same way as they might to their mother. While this activity is more common in domestic fowl and not typically seen in APC, it did seem to help the leg issue. It may not have been the reason leg issues have declined but Ryan says they use it all the time and appear to enjoy it.

Ryan would like the public to remember, "That a very endangered bird in the state of Texas needs help and it's in their own back yard. That the prairie, in general, is hurting and that it just doesn't affect the prairie chickens but other wildlife and they need to be aware of how to help our native prairie to survive and what they can do to help or fix it."

The Abilene Zoo has an APC exhibit for public viewing. It has been a great success and provides the visitor with information about the APC and what Abilene and the other Partners are doing to save the bird.

The APC program at The Abilene Zoo operates on a very modest budget comprised of funds provided by the City of Abilene, the Abilene Zoological Society and the USFWS. As with all of the Recovery Partners, donations are always welcome and opportunities to contribute to the Abilene Zoo's program include the Abilene Zoological Society and TPWD's Adopt-A-Prairie Chicken program. For more information about The Abilene Zoo, visit their web site at: www.abilenezoo.org



Photo above: APC chicks with their "adoptive mom", the feather duster.

Membership

Interested in becoming a member or want to renew your annual membership ? It is now easy to do ,on-line at

www.attwater.org

We are happy to remind everyone that we are now a 501(c)3 nonprofit organization.

Any donations you may make are tax deductible to the extent allowed by law and tax code.

Donors should consult with their tax advisor.

Please consider Friends of Attwater Prairie Chicken Refuge in your charitable giving.





LOVE IS IN THE AIR

Dr. Mike Morrow, Wildlife Biologist



As I am writing this article, Valentine's Day is just two weeks away. The thoughts of young and old alike will soon turn toward special ways to show affection for that special person in their lives. However, humans do not have a monopoly on romance during this time of year. Male Attwater's prairie-chickens are also beginning to "strut their stuff" in preparation for their own season of "amore". Beginning in January and continuing through mid-May, male APCs participate in a daily, early morning and sometimes evening communal ritual, with the ultimate goal of attracting females for a brief "romantic encounter". In fact, in keeping with this "love" theme, part of the scientific name of the APC, *Tympanuchus cupido attwateri*, is derived from Greek and Latin roots which loosely translated means "holding a drum" (*Tympanuchus*) for "amorous desire" (*cupido*).

All North American prairie grouse (APCs, greater prairie-chickens, lesser prairie-chickens, and sharp-tailed grouse) participate in some form of this ritual which has played out each spring in prairie grasslands for eons. Zoologists refer to these communal display grounds as "leks", which according to thefreedictionary.com, is derived from the Swedish word "leka" which means "to play". For members of the species *Tympanuchus cupido*, which includes APCs, greater prairie-chickens, and the now extinct heath hen, this ritual is known as "booming", and occurs on "booming grounds". Many species engage in lekking behavior including some insects, fish, bats, antelope, and birds, but in North America, only members of *Tympanuchus cupido* "boom" on "booming grounds" (Toepfer 2004). With regard to booming grounds, Toepfer (2003:14) states:

"The booming ground is the social center of prairie chicken ecology....The role of the booming ground in prairie chicken ecology cannot be overstated as most, if not all, of the life history of individual birds occurs within a mile of a booming ground."

Booming is certainly the most conspicuous phase of the APC's life cycle, and the only time during the year that one can count on seeing APCs on a routine basis. Males typically fly or walk onto booming grounds in the pre-dawn hours. Once there, they engage in a variety of behaviors with two objectives in mind: (1) defend their individual territory of a few hundred square feet on the booming ground from rival males, and (2) impress the females so that hopefully they (the males) will be selected to pass their genes on to the next generation. To accomplish these objectives, males stomp their feet, raise their tails, erect long pinnae feathers on the sides of their necks, and inflate yellow-orange air sacs on either side of their necks. Or they may face off with one of their rival males on their territory boundaries, each one daring the other to "step across the line". Not infrequently, males resort to sparring to settle boundary disputes, which may result in the loss of a few feathers, but usually no blood is shed. Males also jump into the air and flap their wings in a behavior known as a "flutter-jump" as if to call even more attention to themselves ("look at me – here I am").

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These antics are accompanied by a variety of vocalizations. Lehmann (1941) described at least 17 distinct sounds made by males on booming grounds. The booming sound, which is actually more of a coo than a “BOOM” is a 3-syllable sound something like “ooo-loo-woo”. The quality of the “boom” is much like that produced by blowing over the mouth of any empty glass soda bottle. This sound accompanies the foot stomping/tail raising/air sac inflation described above. Interspersed with booming, males spend a lot of time “cackling” (Lehmann describes it as Ca-ca’-ca-ca-ca-ca-ca-ca-cao-cao), which serves to invite hens and other males to the “party” (“I’m here, come join me”).

Hens begin showing up on booming grounds in late-February, and the peak of mating occurs during the second week of March. Hens usually walk onto the booming grounds in a quiet, demure fashion – the complete antithesis of the males. Hens wander through the males territories as if to “look over the selection”. This drives the males crazy, and all the male behaviors and vocalizations come to a frenzied level in hopes of attracting the females to them. Usually when females are present, males will also make a repeated “whoop” vocalization. Hens visit the booming ground for several days before they select the male which will hopefully become the father of their chicks. Mating is brief, lasting only a few seconds, and then the hen is off to begin nesting activities. Her “mate” remains on the booming ground in hopes of passing his genes to others, and takes no part in nesting or chick rearing.

Jurries (1979) observed as many as 40 males on APC booming grounds, but the average was 6–15. With that many males in one relatively small area, all intent on passing their genes on to future generations, it is a sight to behold. If you have not had the opportunity to observe this spectacular show before, you are missing a real treat. On the first Saturday of each month, the refuge hosts a guided tour to the APC’s core habitat, and during the booming season, we make an effort to observe booming APCs. During April, weekly tours are conducted. Reservations are requested so that we make sure there is space for everybody. Please call the refuge headquarters at 979-234-3021 if you are interested.



Headquarters Complex
Attwater Prairie Chicken NWR

“Wild beasts and birds are by right not the property merely of the people who are alive today, but the property of unborn generations, whose belongings we have no right to squander.” -
President Theodore Roosevelt

WOMAN ON A MISSION

An interview with Refuge Biologist Rebecca Chester

*Rebecca Chester has served as the Assistant Biologist for the Attwater Prairie Chicken NWR since 2009. Recently she sat down with Assistant Refuge Manager, John Magera for this interview for **THE BOOMER**.*

1. Rebecca, tell us a little about yourself -where you're from, where you went to college, and how you became interested in wildlife biology.

I grew up in the mountains of North Carolina, then moved to the eastern part of the state where I lived until 2005. I have been "an animal person" since I can remember- from flipping over rocks along a stream looking at insects while my parents fished to spending a good number of years wanting to become a vet. I worked in a biochemistry lab at a medical school after my bachelor's while I seriously considered going to med school. It was during this hiatus from school that I joined the Sierra Club and eventually realized my love of the outdoors and animals was more important to me. Through my work with the club, I also came to realize that natural resource management and focusing on plants and animals was an actual profession that people made careers of. Wow! Why this had not really occurred to me until then, I don't know. The ability to focus on my favorite pastime and get paid doing that sounded perfect. After finishing my masters in biology at East Carolina University where I concentrated on plant community ecology, I moved to Utah to begin a natural resource management internship.

2. You've held a number of positions in the biological field, including other FWS offices. What interested you in the Attwater Prairie Chicken NWR?

My first temporary position with FWS was at a refuge in northwestern Colorado where I mapped the vegetation communities. After that, I worked at another refuge in Utah where I treated and mapped invasives. Then I had a permanent position with the Utah ES office where I did section 7 consultations for listed plants in BLM oil leases, which consisted mainly of making suggestions of how the BLM needed to manage their habitats to protect the listed plants. When I saw the advertisement for the biologist position at Attwater, I was very interested because I knew not only would I be directly involved in land management decisions at the refuge but that I would be doing research and field work related to the recovery of a really interesting and iconic endangered bird species. The chance to combine the ability to contribute to sound natural resource decision-making, hands-on wildlife work, plant work, and research was irresistible.

3. What do you enjoy most about the work you do?

I enjoy taking the holistic approach to wildlife management, not simply looking at the animal but also considering how the whole environment (plants, soils, climate, other animal interactions) may play a part. That gives me lots of chances to ask "why?" and "how?". Of course I enjoy being outside and enjoying a beautiful sunny day watching the prairie-chickens boom, listening to the cranes or looking at wildflowers-all the while working.

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Cont. from page 6.

4. You've been part of some very interesting and important research at the refuge since you've arrived. What are some of the more significant projects and discoveries?

When I first arrived, the larger RIFA (red imported fire ant) study was initiated to better determine the effect of fire ants on the insect community and therefore the potential and likely impact on prairie chicken brood survival. After 4 years of data and expanding the project even further, we have documented the negative impact on insects and have indications of the negative impact that has, in turn, had on insect-dependent APC broods. I have also helped with research projects looking at the immunological function in the prairie chickens, vegetation studies, and also a crawfish frog study. My favorite question has always been "Why?", so I'm always interested in research projects, especially ones that I see can lead to useful information.

5. Since you've been at the refuge what have been your greatest challenges?

One of the bigger challenges is also one of my favorite tasks. Controlling invasive plants is a huge part of accomplishing habitat management and improvement here at Attwater. So, while I really enjoy monitoring the habitat and planning where and when to treat invasives to make sure it stays healthy, open prairie, it is not an easy task. Many pieces of the puzzle have to come together just right in order to treat invasives. The biggest obstacle is weather of course, so at the correct time of year to treat a certain species, it can't be too wet, too dry, too hot, too cold, too windy, or too calm. The mechanical issues with pumps, sprayers, tractors, and UTV's usually manage to cause problems and delays as well. Coordination with the prescribed burning program is another very useful method for controlling invasives, so that's another factor that needs to be planned for. It's very satisfying to look at an area of nice prairie where all the rose and tallow have been killed, but it takes quite a bit to get to that point.

6. Where do you see yourself going from your current position? Any long-term career goals you'd be willing to share?

Since beginning work with FWS, I have been very interested in how federal agencies coordinate biological research and monitoring throughout the mosaic of public lands and how they decide which projects to support and promote. I think I would be interested in a position at the regional or national level that coordinates projects and proposals such that they are useful for an individual refuge or park but are able to be applied more broadly to other areas with similar questions or problems.

7. Finally, what is something most people would never guess about you?

Not really sure about that, but some of my hobbies include competitive tennis, working on stained glass projects, and hiking.



Above: Refuge assistant biologist Rebecca Chester enjoys the view of healthy, invasive free prairie.

WANT TO HELP REBECCA ON HER MISSION?

Ever wanted to get revenge on Macartney rose? Or wanted instant gratification helping clean up precious prairie? Are you looking for projects to fulfill your Master Naturalist volunteer hours requirement?

The Invasive Species program at the refuge is seeking volunteers to help control and monitor invasive species such as Macartney rose, deep-rooted sedge, johnsongrass, and tallowtree. As part of the invasives treatment project, we offer plant identification and pesticide application training as well as ATV/UTV certification. Volunteers willing to spend at least a couple days per month are highly desirable, but we do have some projects where progress can be made in just one day. Come join the refuge staff as we work to improve the habitat, and enjoy the beautiful prairie and wildlife while you're at it. **If you want to help please contact Rebecca Chester, Refuge Biologist, at : rebecca_chester@fws.gov, office:979-234-3021 x230 cell:979-472-0660**

To learn more about invasive species in Texas visit www.invasivespecies.org

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.

President's Message Cont. from page 1.

This year-long event includes a series of lectures, classes, workshops, conferences, and field trips designed to empower individuals and groups seeking to rebuild or conserve the coastal prairies of Texas through land preservation, acquisition, habitat enhancement and education.

One of the scheduled events of the series is Prairie Chicken Week, April 8 – 12, 2014. This four day event begins on April 8 with a lecture, entitled the Past, Present and Future of the Attwater's Prairie Chicken, presented at the Houston Zoo by Refuge Manager, Terry Rossignol. A tour of the APC breeding facility will be held on April 10, at the Johnson Space Center, and the week will culminate with the "Booming-N-Blooming" Festival at the Refuge.

If you would like to learn more about our prairies and what you can do to help recover the Attwater's Prairie Chicken, I encourage you attend some or all of the scheduled events. To learn more, visit the partners' website at www.prairiepartners.org for a complete schedule and to register for events.

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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 and you will find them archived on the publications page.



FESTIVAL ART CONTEST

The 2nd annual **Festival Art Contest** is underway. The contest is being offered to students in Brazos ISD, Columbus ISD, Rice CISD and Sealy ISD. This year the contest has 3 divisions aligned to grade levels. A coloring contest is being offered to elementary school students. A poster contest is available to junior high students and high school students can participate in a logo contest. First through third place ribbons will be awarded in each grade level and a grand prize winner will be recognized for each division. The High school division grand prize winner will receive a \$100.00 gift card. The goal of the contest is to engage the power of art to help youth feel more connected with nature. The subject of the work must be the Attwater's Prairie Chicken or its habitat. Winning artwork will be on display at this year's Booming-N-Blooming Festival.



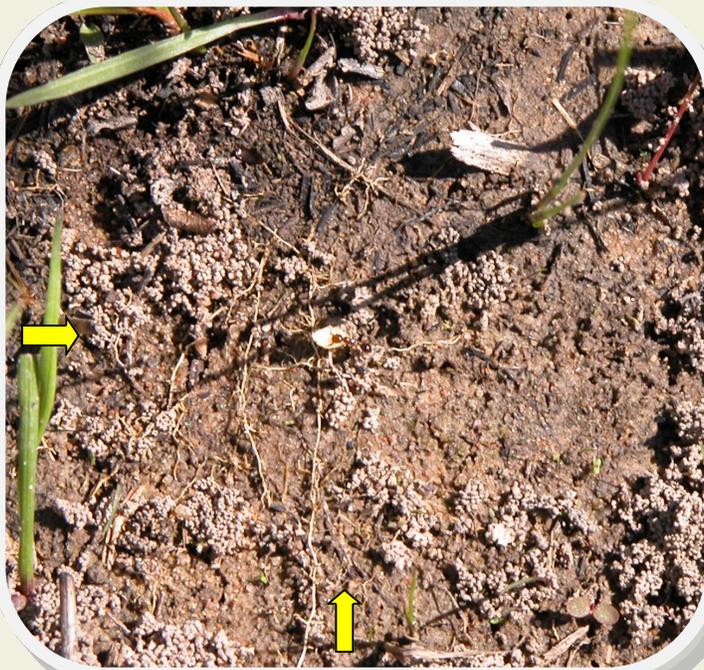
Last year's Grand Prize winning entry from 4th grade student, Diamond Flores of Eagle Lake Intermediate School.

The Friends of Attwater Prairie Chicken Refuge would like to thank Carol Davis and Blisswood Bed-Breakfast and Spa for again co-sponsoring the annual **Festival Art Contest**.



DINNER IS (was) SERVED!

On Wednesday December 18, 2013, the Friends of Attwater Prairie Chicken Refuge provided a hot dinner for the Attwater Prairie Chicken Refuge Christmas-Bird-Count volunteers in appreciation of a long day of hard work. More than 40 volunteers, leaders and refuge staff enjoyed spaghetti, Italian sausage, salad, tea and dessert. Fun door prizes were awarded. We expect this to become an annual event. Thanks to Board members Gary Woods, Brian Cain, Mark Sleeper, Jim Hluchan, Jane Meldahl and Sumita Prasad, as well as Refuge staff for making this event a success.



WHERE'S WALDO ?

Can you find Waldo? In this case, Waldo is the Red Imported Fire Ant carrying off a piece of bait that had just been applied at the Refuge last fall. Look close , he is in the center of the picture at left. The success of this RIFA suppression program has been discussed by Dr. Mike Morrow in previous *Boomers*. There are still funds available for a fall 2014 application and it is hoped we will be able to cover the same acreage. Funding past 2014 is an unknown. You can help by contributing to the Brood Fun.

You can help with this vital RIFA suppression by supporting the *Brood Fund*

MEMBERSHIP MEETING

The Friends of Attwater Prairie Chicken Refuge will hold the Spring biennial membership meeting at **1:00 pm, Saturday, April 12, 2014**. The meeting will be held at the headquarters complex of the Attwater Prairie Chicken National Wildlife Refuge near Eagle, Lake, Texas.