

George
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Sutton
AVIAN RESEARCH CENTER



The

SUTTON

NEWSLETTER

*"finding cooperative conservation solutions for birds and
the natural world through science and education"*

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Sutton Keeps An Eye On Nature ...

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An adult Bald Eagle broods chicks high
atop a cottonwood tree in Tulsa,
Oklahoma. *Photography by Nils Neubauer.*

...with the Bald Eagle Nest Camera.

by M. Alan Jenkins



Above: A close up of a baby eagle at a nest in Tulsa, Oklahoma. *Photography by Nils Neubauer.* **Below:** A Sutton climber negotiates the ascent on spikes through a shield of poison ivy. The large eagle nest is visible at the very top of this photo. *Photography by Dan Reinking.* **Bottom:** The nest camera, mounted to look into the nest to observe growing eagle chicks, includes features such as pan, tilt, and zoom options via the internet. *Photography by Nils Neubauer.*



Last summer, as part of our educational program, we decided to erect a video camera, our "nest cam," mounted near and focused on an Oklahoma Bald Eagle nest. The idea was suggested to us earlier by Bill Johnson of OneNet, which is the state of Oklahoma's provider of digital and Internet services, and an integral partner in the nest cam project. The plan was for a LIVE! video signal from a nest cam to be sent by radio to a tower where it would be loaded to the Internet and be available to all Oklahoma classrooms.

Broadly speaking, our project objectives included education, research, and sharing with the public. Many of the things that happen at a Bald Eagle nest would be very new to the public view, so we knew that whatever questions were generated would offer us an opportunity to educate the viewers about eagle biology and behavior. It turns out that we learned a thing or two ourselves. E-mails from nest cam viewers also showed us that there is high entertainment value in a live Bald Eagle nest cam.

The nest cam video can be archived and used as research data on several levels. Schoolchildren can use lesson plans we create and distribute to address basic questions, the answers to which are mostly already known. But the objective of this process is to give young students experience and insight into how biologists conduct scientific research. Questions such as, "What general kinds of prey are brought into the nest?", "Are the parental roles of the adult female and male in caring for the eggs and young different from each other?", and "How do the young eagles change over time?", can all be answered by periodic viewing of the nest cam in class or at home. More advanced students can conduct detailed research such as constructing a behavior or development timetable during nesting, making determinations of the precise species of prey brought to the nest, and perhaps even estimating the quantity and nutritive values of eagle food. These last questions can also form the basis of a term paper, thesis, or dissertation of a college student, or be investigated by Sutton Avian Research Center biologists.

Our first task was to see what video systems were being used for other bird nest cams. I located all the nest cams I could by doing an Internet search, made note of their systems, and contacted the operators. I chose the website with the highest quality nest video and contacted the operators who generously shared their experience and expertise. After consultations with our OneNet partners, it became obvious that we should upgrade the video standards with an IP (Internet Protocol) camera, and that changed everything, putting us behind. The cameras we finally purchased yielded video many times better than any of the other nest cams, so good in fact, that the high-speed broadband cable we had available to us was not "wide" enough to carry all the signal our camera generated. And that's why even our video is somewhat jerky in appearance.

Next we needed to find a tower that could be seen from an active nest. The video signal from the camera's radio can only go by "line of sight." That is, it could not penetrate a landform like a hill, and even the leaves of trees could block the signal. The tower, therefore, had to be visible from the nest. About the only lucky break we had on

the project was finding a Sprint Communications tower to which OneNet had access and which was in view of two Bald Eagle nests near Tulsa. Sprint Communications eagerly became another partner. The two Tulsa nests were on land owned by the Muscogee (Creek) Nation, and Dr. Beverly J. and Frank D. Mathis; both gave us permission to erect nest cams on their property.

We experienced long delays from vendors when we tried to purchase the type of camera we needed. Finally, Bill Johnson steered us to Milos Milenkovic and Atlas Computers of Owasso, Oklahoma. Milos and crew jumped in with both feet and swiftly had our equipment ready to install at the nest. This, of course, was easier said than done because, in this case, the nests were in the tops of cottonwood trees (which have brittle and weak limbs), one of which was covered with poison ivy vines. So, "installing" the cameras is a euphemism for lots of sweat, scratches, sore limbs (the human appendages), thirst, and inflamed skin in almost all anatomical areas! To make a painful story short, we made Steve Sherrod, our Executive Director, Ryan VanZant, our bird show trainer, and Atlas Computer's Jack Chmura, climb the trees and place the cameras. We, their ground crew, lent all our moral support until our necks got



The male eagle brings food to the nest for the eaglets; the female uses her sharp talons to rip the food apart (in this case, a soft shelled turtle) and feeds the young ones.

Webcam photos



A Few Words from the Executive Director...

I have been thinking recently about how well things are going here at the Sutton Center toward fulfilling our mission of "finding cooperative conservation solutions for birds and the natural world through science and education."

The Sutton Natural History Forum and Scholarship Program for Oklahoma students, the "It's All About Birds!" live bird show throughout Oklahoma schools and elsewhere, and the Nest Camera Project, which has received close to 100,000 hits in two short months, together comprise our education program and promise to be exceptionally popular in our state!!!

Our scientific research efforts continue with the long-term studies of Lesser Prairie-Chickens (LPCH) in Oklahoma as well as the completion of our long-term studies and final report on this same species in New Mexico in response to various land management practices. Our finding of significant LPCH fence-related mortality in western Oklahoma has resulted in our efforts, in combination with USFWS, to remove unused fences and to visibly mark functional fences in areas of frequent collisions. And we have shared this information internationally and collaborated on the evolving solutions to this problem affecting other grouse species in Europe as well. Even our studies of the nighttime movements of LPCH give us clues about when these collisions most frequently occur, and thus, how fences should be marked for best visibility to the chickens. We are continuing to supervise the collection of information necessary to produce the *Oklahoma Winter Bird Atlas*, a companion volume to the already published and very popular *Oklahoma Breeding Bird Atlas*. Significant scientific papers (and books) continue to be published by the Sutton Center in very prestigious, peer-reviewed journals thanks to our research director and staff, and the former is also involved in teaching courses on the OU campus. Our participation with the Attwater's Prairie-Chicken (APCH) Recovery effort has been significant, and hope is very real now that this bird can be saved from extinction. At the Sutton Center, we continue to struggle for funding in order to accomplish our goals, and we are especially grateful for the support that we do receive from individuals, corporate foundations, and private foundations as well as from our state and federal governments; we greatly appreciate your willingness and dedication toward helping with our efforts!

My thoughts in the national and global environmental arena extend well beyond the Sutton Center, and in that regard I do not share the same enthusiasm that I related above regarding the Sutton Center's work. I have very significant concerns for our entire country with regard to the future existence of many species of wildlife and the wildlife conservation that will be necessary to save them from completely disappearing. Of course I am concerned for the disappearing tropical rain forests in less developed countries, but frankly, I am literally shocked at the incredible demands, for everything from fossil fuels to wind energy to housing additions, that have suddenly "exploded" in this country and that are suddenly being made on nearly all of our natural areas. Both private and public, these natural areas provide essential wildlife habitat, without which few more than the urban dwelling House Sparrows and starlings will survive. As I have often said before, we are all part of the problem, myself included. I just can not help but think, however, about how spoiled all of us in this country have become. I was raised by my dad (and mother), a child of the depression, and we were not wealthy. I was taught to keep the string off packages that in those days bound brown paper wrappings as they

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Traps Real and Traps Perceived

by Michael A. Patten

Ecological traps are situations in which an animal's perception of a habitat's quality has become decoupled from that habitat's actual quality. In short, an animal thinks the habitat is good, but it is in fact bad, in the sense that the habitat cannot sustain a stable or growing population of the species. Thus, an animal is "trapped" when it selects habitat of apparently good quality but suffers a loss in reproductive fitness as a result (see Shochat et al. 2005). Hand-in-hand with the notion of an ecological trap are the notions of a source—preferred habitats that yield a surfeit of individuals—and sinks—avoided habitats that, if used at all, yield a deficit of individuals (Kristan 2003).

But what of the fourth option? Picture a simple 2×2 table (Figure 1) with the conditions involved, and it is immediately clear that sources, sinks, and ecological traps account for only three of the four possibilities. A recent review paper (Battin 2004) categorized the anomalous box as another type of source, but that designation seems unlikely. After all, the box unaccounted for in present theory is a situation when animals avoid habitat that, if it was used, would yield a surfeit of individuals.

That this situation could arise is easy to envision. For example, a bird may choose habitats with dense cover because of protection from predators, meaning it will avoid, say, a denuded roadside strip. But this same strip will likely have few predators for the same reasons, meaning it may actually yield higher nest success. Simple population models suggest that, depending on the degree to which the habitat is avoided (relative to selected or "preferred" habitat), this scenario could be just as detrimental to a population as an ecological trap. After all, how can a habitat produce if it is avoided?

In short, these "perceptual traps" are hardly benign. Moreover, we have data from our research on both Greater (*Tympanuchus cupido*) and Lesser (*T. pallidicinctus*) Prairie-Chickens that a potential contributing factor to continued population declines of these species may be linked to perceptual traps. For example, the Greater avoids nesting in recently burned tallgrass prairie, even though nest success is no worse in burned areas. Yet an increase in the extent of burning could keep birds from nesting. Likewise, the Lesser avoids nesting in short-grass prairie treated with tebuthiuron, an herbicide that kills woody vegetation, even though nest success is no worse in treated areas. So, an increase in the removal of woody vegetation—whether from tebuthiuron or other means—could spell doom for the birds unless their innate mechanism for habitat selection evolves.

		actual habitat quality	
		high	low
habitat preference	selected	source	ecological trap
	avoided	?	sink

Figure 1: A 2×2 table showing the four possible combinations of a coupling of habitat quality and habitat selection.

Literature Cited

- Battin J (2004) When good animals love bad habitats: Ecological traps and the conservation of animal populations. *Conservation Biology* **18**: 1482–1491.
- Kristan WB III (2003) The role of habitat selection behavior in population dynamics: Source–sink systems and ecological traps. *Oikos* **103**: 457–468.
- Shochat E, Patten MA, Morris DW, Reinking DL, Wolfe DH, Sherrod SK (2005) Ecological traps and isodars: Effects of tallgrass prairie management on bird nest success. *Oikos* **111**: 159–169.

“Ink” us in for Wild Brew 2006!

Mark your calendars, not with pencil, but with ink, for Saturday, August 12th, 2006! The second annual Wild Brew beer tasting event benefiting the Sutton Center will be held again in Tulsa at the Exchange One Center on the Tulsa Fairgrounds. The Wild Brew committee members are already hard at work to ensure another successful year of this great event! If we missed getting an invitation to you last year, or if you want to add a friend, colleague or family member to the list, please contact Kim Shannon to get on the mailing list this year! (Tulsa office: 918.581.6187 or via email at kshannon@riggsabney.com) See you in August!

Species Profile: Greater Roadrunner

by Dan L. Reinking

The Greater Roadrunner (*Geococcyx californianus*) is a non-migratory, terrestrial cuckoo of Mexico and the south-western and south-central US, though it has expanded its range northward and eastward in recent years. Familiar to certain generations of cartoon watchers, the roadrunner of animated television fame has a distinctive "mheep!-mheep!" vocalization not shared by its real life cousin. Instead, the most common sound given by the Greater Roadrunner is a series of low-pitched coo, coo, coo, coos. What the real roadrunner does have in common with its cartoon counterpart is a preference for running rather than flying, and at speeds of 15-20 mph, it can cover ground quickly. This speed is important because the roadrunner is an opportunistic predator, chasing down snakes, lizards, scorpions, centipedes, rodents, insects, and even birds. Because roadrunners lack the strong talons and strongly hooked beak raptors use to dispatch prey, the unfortunate victim is then beaten against the ground to subdue it before being consumed. Ready to accept a free meal, roadrunners inhabiting populated areas may even help themselves to pet food left out in yards or on porches.

At nearly two feet long, including its long tail, the roadrunner's distinctive shape and habit of running make it easy to identify. Roadrunners have zygodactyl feet, meaning that two toes point forward and two point back, resulting in X-shaped tracks. Roadrunners maintain a long-term pair bond and territory, with nesting taking place from April through July. The nest is usually placed in a thorny small bush or tree about 3-10 feet above the ground. It is built by the female with materials brought by the male. A normal clutch consists of 3-6 eggs which are incubated by both sexes for nearly three weeks. The young are fed by both sexes, and leave the nest between 14 and 25 days of age.

Roadrunners often sunbathe several hours each day, especially during cooler weather. They orient their back to the sun, extend their wings, and raise their feathers to expose their heavily pigmented, black skin to the warming rays. They also dust bathe, though they do not bathe in water, a likely adaptation to the arid southwestern environments in which they are most abundant.

There is much folklore surrounding this interesting and charismatic bird. A famous cowboy myth involves roadrunners building a corral of sorts around a sleeping rattlesnake using cactus spines stuck into the ground. The trapped snake is then awakened and injures itself on the cactus spines trying to escape, during which it can easily be finished off and eaten by the roadrunner. Roadrunners were credited with supernatural powers by several Native American cultures, and the species is depicted in petroglyphs in the southwestern U.S.



Steve Metz

The roadrunner's streaked, brown plumage helps it blend in with its arid environment, and its strong legs can propel it at more than 15 miles per hour during pursuit of prey or while escaping from danger.



James Arterburn

At least a bit of blue orbital skin is always visible on roadrunners, but the orange skin farther behind the eyes can only be seen when the crest feathers are raised.

Oklahoma Biological Survey Opens Wiki Site

Methods of collecting, organizing and disseminating information on biological diversity have been relatively slow to respond to technological innovation over the past decade. The traditional model of agencies' gathering and cataloging field notes is expensive and time consuming. By comparison, internet based contributions of data by citizen scientists have the potential to be much more efficient. To explore this potential, on May 1, 2005, the Oklahoma Biological Survey made available OK WILD BIRD (<http://www.biosurvey.ou.edu/OkWildBird>), a wiki site, to the Oklahoma birding community. The purpose of the site is to allow Oklahoma birders to share their knowledge of Oklahoma birds with the Oklahoma birding community. The wiki allows visitors to the site to search for information on Oklahoma birds and to enter new information of interest. Oklahoma birders can enter their own observations or other information on Oklahoma birds directly into the site and make the information instantly available to the Oklahoma birding community. The site contains information on Birders (People and Institutions), Bird lists, Species information, and information on birding locations in Oklahoma. The wiki is a useful tool for collecting and distributing information about Oklahoma birds. We look forward to its continued use and growth in the future.

From Green to Shades of Gray

by Don H. Wolfe

We all want it! Today, "Green Energy" has become one of the common buzzwords on news broadcasts and in advertisements. After all, why not? Everyone wants their cars, their houses, their clothing, even their soap to be environmentally friendly. The High Plains of western Oklahoma and Texas have a resource that has people seeing green in more ways than one. Anyone who has spent even a few hours in the Panhandles knows that the wind blows long and hard. Harvesting a small fraction of that energy seems to make perfect sense for those that want to see their electrical power coming from "green" sources. Of course, politicians and struggling landowners alike want to see the other kind of "green" that can come from marketing this valuable resource.

The question is, though, how "green" is it really? Large arrays of wind turbines, usually in sets of over 100, along with the associated infrastructure of roads, fences, and transmission lines are invading our remaining prairies at an unprecedented rate. For those people who have never seen vast fields of Indian Blanket, Ferruginous Hawks and Golden Eagles picking off prairie dogs, or heard the cackling of prairie-chickens in the spring, the High Plains probably seem like a barren landscape, one that might as well be contributing to lessening the electrical brownouts in California. Some of us, though, have experienced the wonder of the prairies. Not only will the aesthetics of the wildlife and wildflowers lose its appeal, displacement and isolation of remaining populations of Lesser Prairie-Chickens is a very real concern, especially considering the precarious position that already exists for prairie-chickens.

The hypocrisy is that I am here, lights on, heater running, typing away on a computer; glad to have electricity available readily and inexpensively. Where does that electricity come from? Here, from coal-fired generators and hydroelectric facilities. The environmental friendliness of both are certainly questionable at best. In other parts of the county, much of our electricity comes from nuclear reactors; then, there is the concern over what to do with the waste, or what happens if there are leaks or reactor failures. Compared to the alternatives, wind energy does seem to be a good option. But, is it really "green?" At some wind power facilities, bats are dying by the tens of thousands each year from collisions. At others, raptors, including eagles, meet that same fate. Even

wind turbines placed at sea result in displacing many sea birds, and altering migration paths of other species. For prairie-chickens, mortality from collisions with rotating blades may not be a big concern, but we do know that prairie-chickens avoid vertical structures and other manmade structures such as gas compressor stations. We also know that a substantial number of prairie-chickens die from collisions with fences and power lines. Extrapolating what we do know about mortality causes and avoidance of structures leads to the assumption that prairie-chickens could suffer tremendously from these latest prairie invaders, but, to what extent is not yet known. The time to try to gather that information is now. Even so, if the worst-case scenarios come true, by the time we have determined the effect, it may be too late.

For more on wind power and Lesser Prairie-Chickens in Oklahoma, check out the interactive wind/wildlife map at: www2.ocgi.okstate.edu/website/wildwind/viewer.htm



These pictures were taken at a wind farm near Woodward, Oklahoma. Note the size of these turbines compared to the fence next to the road. *Photography by Don Wolfe.*



Hornbill "Horrorifics"

by Ryan A. VanZant

Several days after a stellar performance in the first ever of "It's All About Birds," Beaker, our Abyssinian Ground Hornbill, *Bucorvus abyssinicus*, was found looking very ill in his enclosure during our daily morning bird check. He was not moving very much and was not interested in eating, which is very strange for him. Beaker is seventeen years old and is known to use his powerful beak to destroy his enclosure, constantly keeping us our toes with "hornbill proofing." Fearing he had ingested a foreign object, we immediately decided to rush Beaker off to the veterinarian.

This task is not as easy as it sounds, though. Most veterinarians treat dogs, cats, and livestock, but birds require more specialized care. The closest "avian specialist vet" to the Sutton Center is located in Tulsa, just over an hour away. So, Beaker was rushed off to Dr. Paul Welch, DVM, of Forest Trails Animal Hospital, who is very well respected in the field of avian medicine.

Dr. Welch and his team received us immediately upon arrival and quickly gave Beaker an initial examination. It seemed that Beaker's gizzard had rocks in it which would not be all that unusual, because these birds will swallow rocks in order to help grind their food, not unlike a chicken eating grit. We then decided that an x-ray would be the next step in order to find the cause of what was ailing Beaker.

Upon viewing the x-ray we discovered Beaker had not only swallowed rocks, but two small screws and a three inch nail were protruding through his gizzard! Ground hornbills eat a varied omnivorous diet in the wild, where they can pick up the tiniest things using their fourteen-inch beaks with pinpoint accuracy. In captivity, it is not uncommon for these birds to pick up and swallow anything they happen to find that may or may not be food. We were not sure where Beaker had come across these construction materials, but the oxidation of the nail suggested that the nail had been in there, unbeknownst to us, for 6-8 months. The Sutton Center had only had Beaker for 4 months at the time, so he probably ingested at least the nail before we acquired him. Regardless of the sources of the hardware, the point of a three inch long rusted nail was moving around in between Beaker's organs and had to be removed.

The next morning, Beaker had surgery to remove the foreign objects from his gizzard. Dr. Welch informed me that he had preformed similar surgeries on emus and peacocks in the past. Ground hornbills, however, are not very common in captivity and this would be a first for him; he was confident, however, that the surgery was well within his capabilities.

Using a custom mask, made by connecting two Ocean Spray bottles together, Dr. Welch was able to anesthetize Beaker and begin the surgery. After solving the potential problem of finding a mask long enough for Beaker's beak, the surgery "went beautifully," and a nail, two screws and several pieces of glass were successfully removed from his gizzard. As it turns out, though, we were not completely out of the woods yet.

Beaker did act much more alert when he came out of anesthetic, but his digestive system had shut down due the trauma caused by the surgery. He was placed on antibiotics and had to have a tube inserted down his throat to be fed a mixture of chicken baby food and parrot hand feeding formula for the next several days. After several tense days, Beaker regained his appetite and began eating his normal diet on his own.

Since our hornbill horrorifics, Beaker has made a full recovery and is back to his "trouble-maker" self. In fact, just two months after his surgery, he went on to perform again at the Sutton Center Picnic, and continues to do well to this day.



Ryan VanZant



Ryan VanZant



Ryan VanZant



Dan Reinking

The 2006 Natural History Forum Series, Sutton Award and Scholarship Competition; a.k.a. AGB week

by Kim A. Shannon

The week of February 20th was an interesting combination of anticipation, excitement, nervous moments, some good laughs and the culmination of much hard work by a multitude of people. Day one of what I called "AGB week" (Annie G. Belt) began on a snowy morning with a presentation at Holland Hall in Tulsa. Annie prepared her computer for her talk, with assistance from Holland Hall staff, and then the students began filling the auditorium. As she began her presentation, the auditorium full of 4th through 8th graders fell silent. The students were absolutely awed with Annie's adventures; the other adults in the large room shared in their wonderment. Annie's beautiful photographs flashed on the screen all too quickly. After a thoughtful round of questions from the students followed with open and honest answers from Annie, we were off to our next appointment. We continued the morning (after a coffee break) with a trip to KOTV Channel 6 and an interview on the noon news. Annie's professionalism came shining through immediately as she described her work and travels with National Geographic, her conservation concerns, and how organizations like the Sutton Center contribute an important combination of research and education to the conservation effort, both locally and globally.

That afternoon Annie made a presentation to science and art students at the University of Tulsa. Annie answered many questions from the unique combination of true "arts and sciences" students. Before we left, she discussed on an individual basis with some of the students everything from career planning to technical aspects of her work. Once again, all were impressed with Annie, her work and her mission. That evening, a reception was held at the Ambassador Hotel so that Sutton board members and others could meet Annie. The reception was a well-deserved treat at the end of our first day of this year's Natural History Forum series.

During the week of February 20th, Annie gave presentations to students in Tulsa at Holland Hall, Booker T. Washington High School, Monte Cassino, Union High School, and the University of Tulsa. In Sand Springs, she shared her experiences with students at both Charles Page High School and the Ninth Grade Central School. Students from the Bartlesville area and Osage County were able to see Annie's presentation at the Bartlesville Community Center that week. We also traveled to

Norman, OK one evening, where Annie gave her presentation to nearly 200 people at the Sam Noble Oklahoma Museum of Natural History. All in all, Annie's inspiring photographs, art and amazing stories reached nearly 10,000 people, the majority of them students, during the week she was in Oklahoma!

Another venue where Annie was well-received was the coinciding fundraising event held at and sponsored by F&M Bank and Trust. On Thursday evening, February 23rd, some 250 patrons and Sutton supporters had the opportunity to see and bid on Annie's art and to purchase a personalized copy of the book on which Barbara Kingsolver and Annie collaborated, *Last Stand, America's Virgin Lands*. Each room of the F&M facility was abuzz with its own activities and energy. There were live birds to admire, scholarship art entries to review, amazing food to sample, new people to meet and silent auction items on which to bid.

The scholarship recipients for 2006 included students from both the Tulsa area and Edmond, OK. Six students placed in two groups and there was one honorable mention. The students received an award of either \$1,500 or \$1,000 with a matching amount being awarded to their school. The three top recipients included: Amanda Plewes of Edmond North H.S.; Blake Cameron Harris of Tulsa



Annie Griffiths Belt addresses students from area schools at the Bartlesville Community Center. During her week-long visit, she told approximately 10,000 students about her travels all over the world and what they can do, as concerned individuals, to help protect our natural world.

Kim Shannon



The Tulsa area recipients of the Sutton Award for 2006. Amanda Plewes of Edmond also received a scholarship, but is not in this photo. Left to Right: Blake Harris, Leah Pagvette, Whitney Lechner, Mark Hammond, Ruth Ross, Nalee Thao, and Matthew Hale.

Kim Shannon

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It's All About Birds



Above: A camera to the side of the stage area projects a live image of the on-stage bird (here a Peregrine Falcon) onto the screen, just like at a football game.



Above: Behind the scenes at the bird show you can see that our staff and volunteers are handling not only the live birds, but they are also managing all technical aspects of the show, *simultaneously*.



Above: Merlin, the Moluccan Cockatoo, stuffs dollar bills into the box to further illustrate the "Economics of Birds" segment of the program.



Left: Ryan answers a multitude of questions after the show. He has the Bald Eagle, Fiona on his fist. **Right:** Ryan addressing questions and talking to the crowd before Merlin starts his act. *Photography by Kim Shannon.*



The Sutton Avian Research Center is proud to present *It's All About Birds*. This free-flighted bird show is intended to educate, entertain, inspire and awe. Lead bird trainer Ryan VanZant and educator Cheryl Jackson have teamed up to bring Oklahoma students a fun and informative program that's designed to fulfill state Pass Objectives and to encourage young minds to learn more about birds and our environment.

The premier presentation of *It's All About Birds* was held in the Union High school gymnasium, on Saturday, February 18th, 2006. Due to severely inclement weather, the 10:00am show scheduled to host approximately 700 3rd-4th grade children and their parents, was cancelled. However, at 6:00pm, Ryan and Cheryl, along with their menagerie of live birds, and volunteers Rebecca Renfro and Richard Day, entertained and educated approximately 300 adults and children. This was the first time many of the birds had flown in front of a large crowd, as was noted by a few episodes of 'stage fright', but overall the show was a hit, leaving visitors laughing and talking about the evening's events.

For the week prior to the show, staff and volunteers had met at Union High school each day. Stage, A/V equipment, and birds were unloaded and set up. Practice sessions were performed to habituate the birds to the school's gymnasium, and for Ryan and Cheryl to accustom themselves to the new A/V equipment and video presentation.

Thanks to student volunteers for assisting with set up and break down in the afternoons. Thanks to Union High's maintenance staff, to Union Science Coordinator Richard Day and also many thanks to volunteer Rebecca Renfro.

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School of Arts and Sciences; and Matthew L. Hale of East Central H.S. of Tulsa. The next group of students was awarded scholarships for \$1,000: Nalee Thao, of East Central H.S. in Tulsa; Ruth Ross of Tulsa School of Arts and Sciences, and a cooperative project submitted by Mark Hammond and Whitney Lechner of Booker T. Washington H.S., also of Tulsa. We also awarded one Honorable Mention to Leah Rae Pagvette of Tulsa's Street School. Whitney Lechner is a double winner; she entered the scholarship competition last year also and won. Many of this year's recipients also attended the Thursday evening F&M event with one or more family members.

The AGB week went well, but more importantly the Sutton Center is grateful to Annie for integrating our message of conservation through science and education with her own inspiring message of global conservation. We are also grateful for the support of F&M Bank, Riggs, Abney, Neal, Turpen, Orbison, & Lewis, PSO/AEP, Acron USA, Intervest Properties, Frisco Title Corporation, The Holmes Organisation, Tulsa People, Tulsa World, Western Printing and Wenzel Design.

The thing I will remember most about Annie is her honest love of and respect for, not only the wild animals and places she has seen, but for both her "international family" and her personal family.

Continued from page 2



The young eagles begin “branching”, gaining flight ability as the season wears on. Webcam Photos.

tired from looking straight up. In addition to the camera, we had to attach the batteries, solar panels, wires and radios up in the two nest trees. Meanwhile OneNet connected a T-1 broadband computer line to the Sprint tower, and later Milos and crew attached receivers to the tower and the T-1 line making the video circuit complete. We were in business. Then tragedy occurred.

Putting the camera and associated equipment at the second nest took time spread out over a couple of days. Each time we were there the adult female at nest #2 would be on the nest, and she would stay there while the crews worked below on the ground and in the lower part of the tree. This female, known to us for many years, was one of the calmest, most nonchalant Bald Eagles I have seen in 16 seasons of checking Oklahoma Bald Eagle nests. This pair places their nest right near very heavily traveled roads and chockablock next to an active railroad track. And all the time that trains are thundering past, and jog-

gers stop and stare at her, and traffic whizzes by, she stays put. Also a construction crew was cutting trees and laying sewer pipe within sight of the nest with little apparent effect. What happened then is counter to all my experience of eagle behavior, and any of our expectations. But, for some reason shortly after we placed the camera near (actually some 20 feet from) her nest, she disappeared. We spent time over the next several days looking for her, thinking she might have been injured or wounded, but we never saw her. We would expect even an eagle that deserted her nest to still be seen in the vicinity; she was not. The male was there, and he was bringing food into the nest; but he isn't behaviorally programmed to brood (protectively cover and warm) or feed the young eagles (which has to be done by a parent, bite by bite, for about the first 6-10 weeks). Instead, he has to catch the food, bring it to the nest, and give it to the female to feed to the young eagles. He can not rear young all by himself, nor can the female, who has to stay at the nest, incubate the eggs, and shelter and feed the young until they are quite near fledging. All three eagle young on nest #2 succumbed to exposure from the wet snowstorm and cold weather that tragically coincided with the disappearance of the adult female. Our nest cam viewers and we were crushed---even though as biologists we know an average of 35% of Oklahoma Bald Eagle pairs that lay eggs fail to produce any young to fledging age. The hard part is that we can not be sure whether her disappearance was or was not our fault. For example, at another Bald Eagle nest in Maryland this year, nearby workers observed a rogue female eagle attack and wound the nesting female driving her permanently out of the air. She had to be recovered and moved to a rehabilitation facility or she would have died. But since we do not know what happened at our nest #2, we publicly take responsibility and cannot help but think that we might have caused her to desert her nest and three young eagles. We hope, however, that it was merely coincidental with our placing the camera.

Not to say that nest cam #1 was without problems. When the above mentioned snow fell, the solar panels could not recharge the camera's batteries owing to the lack of sunshine; so that camera failed to broadcast for a couple of days. This has been a recurring problem. Too, the camera is close to the nest, and even in maximum wide angle views, sometimes the eagles are out of view. At these times, I have to (actually I love to) use the camera's pan, tilt, and zoom functions to locate them. As the eaglets gained flying ability they were even harder to find when they walked, and jump-flew to branches near the nest out of camera range.

Altogether we consider the nest cam to be a resounding success, and all but two of the many hundreds of e-mails from the nearly 100,000 viewers agree. Enthusiasts from England, Australia, Yugoslavia, and the Dominican Republic regularly tracked the progress in the nest. Many e-mails asked questions about what they saw. We think we might open a web log (blog) to answer those questions next year instead of responding to individual ones. Many teachers wrote to say that their students were very interested in the video, and, “What the heck were those round things on the nest?” (Answer: <worth 2 points of extra credit> the shells of soft-shelled turtles brought into the nest as food) A pigeon, a couple of American Coots, a duck, a fox squirrel, and many fish (mostly gar, catfish, and a sunfish) comprised most of the food eaten. Some viewers, typical American champions of the underdog, worried about the discrepancy in size of the eagles. I was able to tell them that females, and first hatched eagles are larger than males and later hatched young, and that the size difference was normal and not usually a problem.

Next year we'll learn from this year's faux pas and will have a better, more reliable system on the nests. We might have to start broadcasting in September in order to video the whole nesting period because that is when the adults begin to repair their nests. Please join us early next year and get a rare, exciting and intimate view of the homelife of one or two pairs of Oklahoma's nesting Bald Eagles.

The Sutton Center gratefully extends our thanks to project cooperators Milos Milenkovic of Atlas Computers, Dr. Beverly J. and Frank D. Mathis, the Muscogee (Creek) Nation, the Oklahoma Department of Wildlife Conservation, OneNet, Sprint Communications, and the U.S. Fish and Wildlife Service. Without their help and/or permission, this ambitious and difficult project would not have been possible. And thanks to Nils Neubauer (<http://pbase.com/nilsn/wild>) for allowing the use of his wonderful photographs to illustrate this article.

To view the Bald Eagle nest camera when it returns, go to our primary website at www.suttoncenter.org, and click through a couple of screens to the nest cam video.

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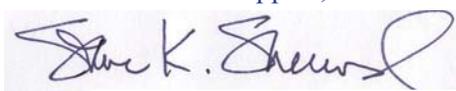
traveled through the U.S. Mail, and we had a drawer full of tiny balls of such bindings to be used again. Among the many things, paper clips, rubber bands, and plastic bags were saved and made to work over and over. Paint brushes were carefully cleaned for re-use, and even rags were saved to be used again and again. As a child, I spent hours pulling and straightening nails from old, wooden pallets so I could help my dad build me a tree house by recycling both boards and nails. Of course, you just do not see that type of conservation much today, primarily, I believe, because we have become too lazy. Relatively few people in our country save and re-use anything.

But as a youth and young adult of the 60's and 70's, I sometimes ask myself where did the earth movement go? To where, on a planet we all must share together, did the concern for recycling, clean air and water, and wildlife and wildlife habitat as well as wise use of our resources disappear? Yes, there is some recycling, but did it go to being a one-day-a-year "Earth Day" only? As the bumper sticker states, "Everyday (should be) is Earth Day." I believe it still is, although maybe just for a minority; but, it does not seem to be on the radar screen for the masses. There is no concern about what is left for posterity, but more of a "get mine now, get rich quick no matter the cost" philosophy seems to prevail. There are probably many reasons for this, but I think the leadership of our country is primary. And lest the reader thinks I am only jabbing our current president, (and I AM jabbing him), as far as being environmentally concerned, his predecessor was no environmental champion either. I distinctly remember and will never forget our current president laughing and stating early in his first term of office something like, "Conservation? This is the United States of America. We are blessed. We don't need to conserve." In my opinion, this is not a good role model, not a good example, no matter what political party you favor. (By the way, I am a registered Independent who is not particularly enamored with the environmental direction or mis-direction of either of the two major political parties at present.) We do need a leader, regardless of your party affiliation, who IS really concerned about the environment we all must share and its (our) future; and we need a leader who shows that concern at the top of the list and at the same time that he/she is involved in dealing with all the world's other problems.

We continue to lose worldwide an amazing number of plant and animal species in our rabid race to grow and conquer in a mindless chase to be first and to be monetarily rich. We ignore the long-term and often permanent environmental losses in spite of what the past has taught us. What difference do these species make? We have considered before that we could certainly have stood the loss of bread mold until we realized that from this mold penicillin was developed. Recently, from the poisonous gila monster and beaded lizard of the desert southwest, that only dine perhaps 2 or 3 times per year and thus very gradually control the release of energy from these meals within their systems, come hope for a drug to help slowly dispense a continual and even supply of insulin into the blood stream of diabetics. From the venom of the hairy scorpion, North America's largest, comes hope for treating brain cancer; from the venom of jumper ants comes a chemical to help lower human blood pressure; and from the saliva of tiny ticks surfaces medicine to help treat heart ailments. In Australia, the poison of the orb funnel spider is being studied as a potent pesticide, and the saliva of the Australian blue-ringed octopus is also being studied with regard to its nerve paralyzing and thus pain killing potential. The harpoon poison of the cone snail is being used to help treat the pain of cancer patients. The poison of the harlequin frog from Costa Rica is also being studied as a pain killer for seriously ill patients as is the poison inside the Japanese blowfish. The poisons in the golden frog (poison dart) and the giant monkey frog of South America are being analyzed for use in the treatment of mental illness, thrombosis, and heart attacks. And yet, we carelessly ignore these treasures and millions more just like them in our race to "win" (what?). What? Well, we HAVE made some incredible advances for humankind and accomplished incredible feats, but let us do it wisely.

The point is that rather than encouraging a run madly across the continent, blindly harvesting resources such as energy but without a real plan that considers wildlife and its habitats, I think we MUST focus on the responsible and conservative use of the resources we have ALREADY harvested as well as those we are CURRENTLY harvesting, on reducing our blatant waste in this country in almost every category, and on educating our population in this regard. Even the pop star Jack Johnson has a song on his "Curious George" CD entitled "Reduce, re-use, and recycle." Shouldn't our own government be responsible enough to light this path rather than a pop star? To where we are racing with all this energy I am not quite sure, but a significant part of it is toward things we do not really need. Now, as I have oft stated before, I am certainly not against "progress," but we need to give some real thought about exactly what that term means.

Why am I writing all of this? Well, I feel very frustrated at what we are doing to our planet. Environmentally, I know that no one can do everything, but every one can do something. You know, I really kind of liked my dad's cabinet drawer full of string and paperclips; I have one too. At the Sutton Research Center, we are doing our best to educate and to use good science to steer environmental conservation in the right direction. Please join us in our continued and determined efforts to do our/your part. We need your financial and moral support, and we will continue to do our best to do our/your part for our planet.



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