

George
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AVIAN RESEARCH CENTER



The

SUTTON

NEWSLETTER

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

Volume 33, Winter 2009

2009 Wildlife Expo



Cover: Ryan VanZant gives an educational presentation at the 2009 Wildlife Expo. (See Page 6 for details). Inset: An event participant measures his "wing span" in the Sutton Center booth at the Expo. Photography by Thomas Maupin.

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Update on Fence Marking and Removal:

Story and Photography by Don W. Wolfe

As reported in earlier newsletters, our research has shown that collisions with fences are a leading cause of mortality for Lesser Prairie-Chickens in Oklahoma. It is also well documented that fence collisions are problematic for several other species; in fact, as early as 1883, fence collisions were identified as a major cause of mortality for Red Grouse (subspecies of Willow Ptarmigan) in Europe, soon after moorlands started to be fenced for sheep grazing. Most grouse fly low and fast when attempting to escape raptors, and several grouse species will even “crash” into shrubs for escape cover. While we believe grouse to be fairly intelligent, they lack the cognitive ability to recognize taut steel wire as lethal, when small branches of most shrubs easily give way to the birds’ speed and mass. It stands to reason that reducing the overall amount of fencing would greatly benefit grouse, but is rarely an option. Some efforts in Europe in the 1990s showed that marking fences to make them more visible did reduce collisions. Finding a cost effective material and method for marking 5-strand barbed wire fences was challenging. Our solution (for now) is using 3” pieces of vinyl house siding trim strips (for more information on this go to: http://www.suttoncenter.org/fence_marking.html). Since we began marking fences in this manner in March 2006, we have now marked over 132 miles of fences in northwestern Oklahoma and the northeastern corner of the Texas Panhandle. Combined with ongoing removal of unnecessary fences, we estimate that we have now positively impacted over 110,000 acres of Lesser Prairie-Chicken habitat. This is all good news for Lesser Prairie-Chickens, but the good news does not end there. With the support of several private individuals and corporations, fence marking efforts continue in Oklahoma. We recently also received a grant from the U. S. Fish and Wildlife Service to further our fence marking efforts in the Texas Panhandle. Volunteer efforts in Oklahoma, led primarily by former GM-SARC employee Eric Beck, are assuring that many more thousand acres of Lesser Prairie-Chicken range in Oklahoma are

being made safer. Even beyond our efforts, though, we are pleased to report that this method is receiving large-scale support and usage across several states and even across continents. For example, fence marking is now being done on a large scale in Utah, Idaho, Wyoming, and Montana for Greater Sage-Grouse, as well as in several states for the benefit of both Greater and Lesser Prairie-Chickens and the closely related Sharp-tailed Grouse. Colleagues in France, Norway, and Scotland are now using or considering using the same methodology in Europe to benefit Capercaillie, Black Grouse, Rock Ptarmigan, Willow Ptarmigan, and Hazel Grouse. We have heard reports that these same methods are being used in Hawaii and Australia to benefit several other avian species (it should be of little surprise that birds other than grouse can also fatally collide with fences).

Even with these successes, however, we are still facing a number of hurdles. First, there are many more miles of fences in Lesser Prairie-Chicken range than could ever be marked, although we hope that we can impact some of the more crucial areas. Then, there is the public acceptance; almost all of the prairie-chickens found in Oklahoma occur on private lands. Some land owners simply do not want to see markers on their fences, are concerned about livestock eating the markers, or are worried that by marking their fences, their land is recognized as having a rare species, which may become officially recognized as an Endangered Species in the future. One way we are trying to increase public awareness and acceptance is by placing explanatory signs about every ½ mile on fences along roads. Then, there is fire! Rangelands where prairie-chickens are found depend on occasional fires to maintain the proper plant diversity and vigor, although fire has been excluded from the process for decades in some areas. The plastic markers on fences do not hold up to intense fire. If a given area is unlikely to burn in the subsequent 5 years or so, then using vinyl fence markers should still be of some benefit. We are investigating the possibility of having aluminum markers made that would be up to fire.



Above: These signs along the fence lines of the prairie bring awareness of increasing fence visibility to reduce gamebird mortality. The fence marking has been provided by the Sutton Avian Research Center, the U.S. Fish & Wildlife Service, the North American Grouse Partnership, and the Oklahoma Department of Wildlife Conservation. **Below:** An example of the vinyl house siding trim strips used to mark the fences.



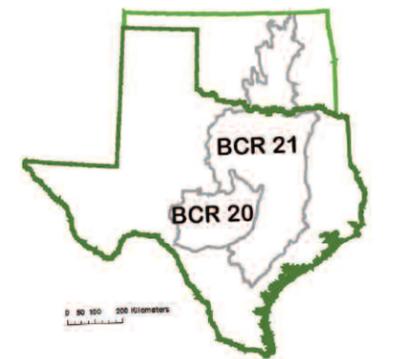
The Oaks and Prairies Joint Venture logo visually illustrates the purpose of the group; namely, the conservation of birds in the grasslands, savannahs, and woodlands that make up much of central Texas and Oklahoma.

Sutton Center joins new Oaks and Prairies Joint Venture

by Dan L. Reinking

The long-term conservation of birds and other wildlife is a complex process given the many pressures they face. In the 1980s, migratory waterfowl populations were dramatically reduced by a decade long drought within their breeding range, as well as by human induced habitat loss. The problem of restoring duck populations and habitat seemed enormous but was eventually addressed through the development of public and private partnerships for habitat conservation. Originating in the wetlands of the north-central U.S. and south-central Canada for the benefit of waterfowl, this partnership approach to bird conservation has since spread across most of the country in a series of what have become known as joint ventures recognized by and funded in part through the U.S. Fish and Wildlife Service.

Joint ventures are either regionally based, or can instead focus on a specific species or group of species. Partners in a joint venture may include state and federal agencies, nonprofit organizations, universities, tribes, corporations, or other groups or individuals interested in bird conservation. The organizational structure typically includes a management board to oversee the finances and overall direction of the joint venture, and a technical committee which evaluates and prioritizes conservation needs by examining or collecting the best scientific information available, and monitors the success of conservation efforts.



Bird Conservation Regions 20 (Edwards Plateau) and 21 (Oaks and Prairies) make up the Oaks and Prairies Joint Venture region.

The recently established Oaks and Prairie Joint Venture (OPJV) spans parts of Oklahoma and Texas and includes representatives from both states. The area of the joint venture encompasses nearly 60 million acres of land and includes Bird Conservation Regions 20 and 21. These two Bird Conservation Regions (BCRs) are defined by the North American Bird Conservation Initiative, and are also known as the Edwards Plateau and the Oaks and Prairies regions, respectively. The Sutton Center is located at the northern end of the Oaks and Prairies BCR, and has done a variety of field research and conservation work in the region. For these reasons, Sutton executive director Steve Sherrod was invited to serve on the management board of the OPJV, and Sutton senior biologist Dan Reinking was invited to serve on the technical committee.

Spearheaded by the Texas Parks and Wildlife Department, the establishment of the OPJV was recently formalized with notification from the U.S. Fish and Wildlife Service that the joint venture is being officially recognized by the Service. Though a fledgling organization, the OPJV expects to hit the ground running. It can draw from the experiences of older, more established joint ventures, and has already held several planning meetings. The conservation challenges in BCRs 20 and 21 are many. Less than 3% of the land in the regions is publicly owned, so meaningful conservation efforts will depend upon the cooperation of private landowners. There are a number of major urban areas in the regions, including Oklahoma City, Tulsa, the Dallas-Fort Worth metroplex, Austin, San Antonio, and others. These population centers are large and growing, and with that growth comes additional habitat loss. Golden-cheeked Warblers and Black-capped Vireos are among the species in the region that will be of high management priority, but many grassland and savannah species are declining and in need of conservation. The Sutton Center looks forward to working with OPJV coordinator Jim Giocomo and the other partners to help shape the direction and enhance the effectiveness of bird conservation efforts in a meaningful way.



Most of the U.S. now falls under the purview of one of the 18 regional bird conservation joint ventures.



Above: Some two dozen subspecies or forms of Song Sparrow have been identified. Photography by Bill Horn. Background Photo: A chalet deep in the Swiss Alps. Photography by Brenda D. Smith-Patten.

The Song Sparrow Invades Europe

by Michael A. Patten

The Song Sparrow (*Melospiza melodia*) is a widespread and familiar bird across North America—it occurs from the western Aleutian Islands to Newfoundland, and from boreal Canada to the Mexican Plateau. And with twenty-five diagnosably distinct subspecies, it is the most geographically variable bird species on the continent; indeed, the Song Sparrow is among the most geographically variable species of bird in the world.

Perhaps it is not surprising to learn, then, that the various populations of the Song Sparrow differ in aspects of basic biology, such as migratory tendency. Some populations, such as those in the Northeast and northern Great Plains, are highly migratory. It is birds from these populations that visit Oklahoma each winter in large numbers. Other populations, such as those in the arid Southwest, are highly sedentary. For instance, individuals restricted to marshes in central Mexico likely remain in the same marsh their entire lives.

What about this article's title, then? Have the highly migratory Song Sparrows "jumped the pond" and settled in Europe. In short, no. Apart from a single record of a vagrant recorded recently in Japan—I refer interested readers to the *Japanese Journal of Ornithology* 57:160–163, 2008—and about ten records for western Europe, including seven records for the United Kingdom and singles for Belgium, the Netherlands, and Norway (see *Dutch*

Birding 29:31–33, 2007), the species has not been recorded in the Old World. The invasion to which I refer was not by the birds themselves; rather, it was by those who study this marvelous species. Or to be bluntly honest, a lone person who studies the species, me, invaded, albeit staging an invasion to only two areas. Let me explain. . . .

On the strength of a paper I published with Christy Pruett, the former Sutton postdoc who is now an assistant professor at the Florida Institute of Technology, in *Systematics and Biodiversity* (7:33–62, 2009) about a ring species in the Song Sparrow, I was invited to present a talk at the Evolutionary Biology Meeting held annually in Marseilles, France, for the past dozen or so years. As you will doubtless recall from a recent article in the *Sutton Newsletter*, a ring species is formed when two morphologically distinct populations behave as biological species where their ranges meet but in the other direction are connected by a chain of population through which morphology blends gradually. Using this foundation, I constructed a 25-minute talk exploring the various biogeographic scenarios under which the ring may have evolved. In short, rings are thought to form when a species expands its range into a new area but in doing so has its populations cleft by a hard geographic barrier such as a mountain range. As range continues to expand along either side of this barrier, the now isolated populations begin to diverge in appearance, behavior, or genetics. When the end of this barrier is reached and populations reunite, they are now so different that they act as separate species, yet at the other end of the ring, where it all began, populations still interbreed freely because they never had occasion to differentiate.

My chief hope was to convince this international audience that this system was of considerable interest and well worth additional study. On another level, I wanted feedback on two plausible alternative explanations to ring formation that have never been elucidated, let alone tested. One is that the ring evolved *in situ*, meaning that the species had a distribution like a doughnut but that at one point on the doughnut there was, say, a strong environmental gradient—a sharp change in vegetation or climate or competitors—that promoted divergence. In this scenario, a ring species would be the result, yet the mechanism by which it formed would belie conventional models. Alternatively, perhaps the ancestral species' range did expand but did so in the opposite direction as outlined in the standard model. If initial bifurcation took place where there was a sharp environmental gradient, a ring species would again be the end product, yet again the mechanism by which it formed would be different.

Fortunately, my fellow conference attendees were receptive, and I received a number of great questions and comments. And the conference itself proved to be most rewarding: it was the first one I had attended in many years at which I did not know anyone there, and my presentation was so well received that I was invited by the conveners to contribute a chapter to a forthcoming book to be published by Springer (which has published books from each of the past two Marseilles conferences).

My Song Sparrow wanderings continued immediately after the conference ended. We caught a train from Marseilles to Lausanne, Switzerland, early the next morning, then rented a car to wander over to Zurich. There I met with a colleague, Dr. Lukas F. Keller, a collaborator on several recent papers on population genetics of the Song Sparrow (*Heredity* 101:67–74, 2008; *Condor* 110:359–364, 2008; *Conservation Genetics* 10:419–430). Lukas acted as my host for a zoology seminar I gave at Universität Zürich, as well as introduced me to his burgeoning lab, which was a suite including postdocs, graduate students, and technicians, some of whom are developing new molecular tools that will provide greater resolution in future studies.

In my seminar I covered similar ground to what I had covered in Marseilles, although I had to expand my talk to 45–50 minutes. I presented more of the important evidence for why the "contact points" of the ring—the two most divergent subspecies—behave as biological species where their ranges meet in southeastern California (see *Evolution* 58:2144–2155, 2004). This talk, too, was a grand success. I received great feedback and numerous comments, enough to encourage me that we are on the right track exploring the fascinating complexity of the evolutionary history of so variable and widespread a little bird.

Lena Larsson Returns to Sutton

by M. Alan Jenkins



Each Sutton Center worker, upon entering our employment, fills out a personal data sheet. A count of these reveals that we have had 252 employees, interns and post-doctoral employees over the last 25 years. Most of the 252 worked on a seasonal project and then moved on, while a few seasonal employees have worked for more than one season before leaving. Former employee Lena Larsson has returned to work with us after an intervening period of almost 10 years.

Lena originally signed on to work on our Greater Prairie-Chicken radio-telemetry study which we conducted in nearby Osage County. It followed the same protocol as our current Lesser Prairie-Chicken project wherein we trapped adult prairie-chickens on their booming grounds and then evaluated their habitat use, movement behavior, mortality, and nesting success by tracking them. While working on this study Lena met her spouse to be, Shane Rencountre, in Pawhuska, OK. After working on the Greater Prairie-Chicken project for close to two years, she and Shane moved to Sweden (where Lena originated).

Lena then began working towards a PhD degree at Stockholm University, initially part time because Lena and Shane became parents to two daughters – Hannah and Isabella. The PhD position included teaching conservation biology and biological statistics. She has become specialized in the areas of population and conservation genetics, making her a very valuable addition to our research team.

Lena's PhD dissertation concerned analytical methods of detecting differences in genetic biodiversity in space and over time. Atlantic herring was the species she most analyzed, but many of the results are applicable to avian species as well. She also investigated what information exists regarding the genetic impact of harvesting and supplementations of wildlife species, so species of special concern included Mallard, Grey Partridge, and Ring-necked Pheasant (although the pheasant is an introduced species in Sweden as well as here, it has been there so long that many consider it "naturalized"). She also was involved in a large inventory of sea birds in the Stockholm Archipelago by the Swedish Ornithological Association.

Lena has filled our post-doctoral research position and is busy applying statistical analysis methods to data the center has gathered throughout the years, but which have not yet been published. The post-doc appointment is for 2 years, and Lena will then work with our proposed Attwater's Prairie-Chicken breeding facilities, if funding for that project can be identified.

28th Prairie Grouse Technical Council (Grouzers Council)

by Don H. Wolfe

Every two years, biologists from several Midwestern states and a few Canadian provinces gather together to grouse about ecological issues, or more specifically, to discuss the biology and conservation of prairie grouse. This year, about 100 of these "grouzers" gathered at Portales, New Mexico, at what officially was known as the 28th Biennial Prairie Grouse Technical Council meeting. The main grouching discussions included cutbacks in state agency funding, a proliferation of wind development across much of the presently occupied prairie grouse habitat, the continual loss of native rangeland, the expiration of Conservation Reserve Program (CRP) lands and conversion of those CRP lands to row-crop agriculture, and general decline of prairie grouse numbers. Fortunately, most prairie grouse biologists are not just grouzers; even when outlooks may appear bleak, these grouzers do not just give up, instead they become a united force toward whatever it takes to conserve prairie grouse and their habitats.

Of course, not everything was negative. There were a number of presentations on successes in prairie grouse conservation about such topics as transplants of Greater Prairie-Chickens, the growing acceptance of fire as a management tool, improvements in the Attwater's Prairie-Chicken captive rearing, and the successful reproduction of free-roaming Attwater's Prairie-Chickens for the first time in several years. Also, during the long drive to and from New Mexico, Luke Bell, Ken Collins, Steve Sherrod, and I solved nearly all the problems facing prairie-chickens (at least we like to think so!).

At every PGTC conference, a banquet is held the final evening, during which the recipient(s) of the Hamerstrom Award is announced (for lifetime achievement and dedication to prairie grouse, named after Frederick and Fran Hamerstrom, who had dedicated over 40 years to research and conservation of Greater Prairie-Chickens and Sharp-tailed Grouse). The recipients this year were two long-time state agency personnel: Randy Rogers (Kansas Department of Wildlife and Parks), and Bill Vodehnal (Nebraska Game and Parks Commission). We also were treated to some amazing poetry and singing by Joe Whitehead (NRCS) and Betty Williamson (wife of local rancher), which effectively ended our grouching, at least until the 2011 PGTC meeting in Kansas.

Sutton takes off at Wildlife Expo

by Ryan A. VanZant
Photography by Thomas Maupin

This past September the Sutton Center's Education team participated in the 5th annual Oklahoma Wildlife Expo at the Lazy E Arena in Guthrie, Oklahoma. This is the second year that the Sutton Center has taken part and again was one of the Expo's biggest draws for the 40,000 visitors who come to experience many of the things that the outdoors of Oklahoma have to offer. Expo goers had the opportunity to try out shooting, fishing, and kayaking first hand, not to mention the many seminars and booths that offered information on various other facets of the Oklahoma outdoor experience. Our booth included information on our efforts with the Bald Eagle, our nest cam, education programs, prairie bird research, fence marking procedures, and also allowed comparisons between Bald Eagle and attendees' "wingspans" (see cover photo). Of course, this booth would not have been possible without the help of volunteers Elizabeth, Marje and Thomas Maupin, and former Sutton employee, Margie Nolan. The four of them worked tirelessly answering questions, giving out information, and taking pictures.

The Sutton Center also supplied "edutainment" on the center stage of the main arena with help from some of the stars of our "It's All About Birds!" education program and a 20x20 foot screen showing live camera shots, videos, and slides. Without the time and space needed to perform the entire program, a condensed version was presented to an enthusiastic crowd. Appearances were made by our American Kestrel and talking African Grey Parrot to help demonstrate the relationship between humans and birds. One of our Harris's Hawks flew down from the rafters at the far end of the arena, buzzing the crowd, much to their delight, to explain how raptors are beneficial to humans. The program was capped off with one of our nation's greatest conservation comeback accounts—the story of the Bald Eagle. Audience members were allowed to come up to the edge of the stage and get a close look at their nation's symbol in the form of our Bald Eagle, Fiona, as well as the Center's Golden Eagle, Midas. This was the first time many of these people had seen an eagle, and you could witness the awe in the faces of the children, and many adults, from this encounter. It goes to show that coupling sound educational topics with birds really hits home with many audience members, and we hope it will influence the lives and actions of all of these people for years to come.

Eagle Nest Web Cam Receives KEEP OKLAHOMA BEAUTIFUL AWARD!

by Steve K. Sherrod and M. Alan Jenkins

We are delighted to report that the Sutton Center and our partners, OG&E, Atlas Computers, and OneNet, have received the **Keep Oklahoma Beautiful Team Builder Award** for 2009. Of course other sponsors of this project are essential, and they include NatureWorks, Inasmuch Foundation, the John Steele Zink Foundation, the Newfield Foundation, the Anne and Henry Zarrow Foundation, the U.S. Fish and Wildlife Service, and the Oklahoma Biological Survey at OU's College of Arts and Sciences.

This award is presented by the **Keep Oklahoma Beautiful** Board of Directors, and the specific **Team Builders Award** honors those organizations that have worked together to achieve a goal of creating a more sustainable and beautiful Oklahoma in a unique way. An annual celebration and recognition dinner attended by some 350-400 people and at which seven total Keep Oklahoma Beautiful Awards were presented by Mayor Mick Connett took place on November 17 in Oklahoma City at the historic Skirvin Hilton Hotel.

Readers of our newsletter and our website (www.suttoncenter.org) will be well aware of the fact that the nest cam site received some 4 million hits from 60 countries this past season. Sutton biologists have been working on various eagle nest cam projects for the past four years. Atlas Computer folks have been essential in keeping the cameras and assorted equipment such as the solar power gear going during each season. And the Sutton crew has been working too with OG&E for several years on various conservation projects; the current nest platform was built by OG&E's Erv Warren in conjunction with Sutton's assistant director, Alan Jenkins. The signal picked up by wireless cameras at the current nest is forwarded to the OG&E plant, and then to Atlas Computers. From there it goes to OneNet which shares it with the world. This past season the server had to be rebuilt twice by the Atlas folks in order to provide enough capacity for the increasing traffic. All of this takes not only the time of workers, but it takes funding for equipment. Enter the other partners listed in the opening paragraph of this article, for the support of whom we are especially grateful. It is clear that it takes the many partners in this team in order to make this project continue to operate. In the Fall 2009 issue of *Sooner Magazine* (available at www.oufoundation.org) writer Anne Harp has provided an excellent article that explains some of the details and difficulties encountered in this project.

Sutton Center biologists and Atlas Computer employees are working now on installing new cameras and other equipment in order to be ready for the 2010 nesting season. The plan is not only to provide coverage once again of the nesting eagles and their chicks atop a new and improved nest cradle, but to also equip the pre-fledged chicks with solar powered, satellite transmitters so that their dispersal can be followed and reported back to viewers. Note that we said "the plan is..." We are hoping for good luck.

See the Fall 2009 issue of *Sooner Magazine* for an in-depth look into the 2009 nesting season.



2009!



by Karen A. Kilbourne
Photography by Dan L. Reinking and Ryan A. VanZant

Another successful year for "the greatest party ever hatched!" Hats off to our event co-chairs, Toni Garrison and Kari Culp, who, along with Margie Nolan from the Sutton Center, led our fantastic team of volunteers this year! We also want to thank our honorary chair Jim Langdon of *Tulsa People* for all his hard work as well as for the wonderful publicity he gave the event.

Wild Brew is the Center's largest annual fund raiser, and the evening began with a Patrons-only hour at 4:00 pm. Four-hundred Sutton supporters entered to the tunes of Shelby Eicher and Mark Bruner. They enjoyed scrumptious dishes of all kinds from 27 of Tulsa's finest restaurants and up to 85 different beers from a variety of different vendors.

By 5:00 pm 1,500 additional guests had joined the party, and it was in full swing with the The Fabulous Mid Life Crisis Band leading the way. As always, we offer our sincere gratitude to both Eicher and Bruner and Mid Life Crisis for the central role they play in making Wild Brew a success!

Last year's "Golden Tap Award" winner, Marshall Brewing, was very popular again this year. This year's winner, Simon Sagonda of Sagma Enterprises, introduced a line of African beers which offered wide appeal.

We appreciate all of our sponsors and patrons but would like to especially acknowledge the H.A. & Mary K. Chapman Charitable Trust, IdeaStudio, Shamrock Communications, Osage Million Dollar Elm Casino, the John Steele Zink Foundation, Tulsa People, Urban Tulsa Weekly, Braden Manufacturing LLC, and Blackshare Environmental Solutions.

Many thanks also go to all of the participating restaurants and beer vendors for their time and generosity. They are listed at www.wildbrew.org.

Most of all, thank you to the volunteers. The Wild Brew volunteer committee is outstanding! And last but not least, we would like to thank Michael and Ping McBride III for hosting the thank you dinner in their home this year.

See you all next year on July 31, 2010!





An American Goldfinch visits the bubbler for a drink and a bath. We have seen about 20 species of birds using our bubbler in the five months following installation.

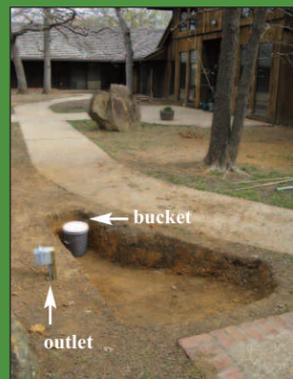
Hands-on project: Building a “bubbler rock” water feature to attract birds

Story and Photography by Dan L. Reinking

A “bubbler rock” is a water feature in which water is pumped through a hole drilled in a rock and bubbles out of the top, creating an attractive sound and, when designed well, offering drinking and bathing opportunities for birds. Our new bubbler rock water feature at the Sutton Center came about through the generosity of many people. Amateur bird photographer Brenda

Carroll of Bixby, OK, would from time to time send us beautiful bird photos from her yard, and we eventually learned part of her secret...a bubbler rock to attract the birds. She and her husband Steve invited us to their home to see their bubbler rock and other water features, and offered helpful advice on construction. Sutton Center volunteers Mark, Rhonda, and Noah Cannady readily agreed to provide labor, and did the hard work of digging the hole and scouring our property for rocks. Another friend of the Sutton Center, Greg Stipp, has installed water features for a living and provided valuable advice as well as leadership for our volunteers and staff on installation day. With the donation of a submersible pump and pond liner material from Pond Pro Shop in Shawnee, OK, we were off and running. The accompanying photographs provide an outline of the installation process. The project can easily be scaled to something smaller and simpler, or expanded to include a simulated riverbed and waterfall, something we are now inspired to attempt on the other side of our building!

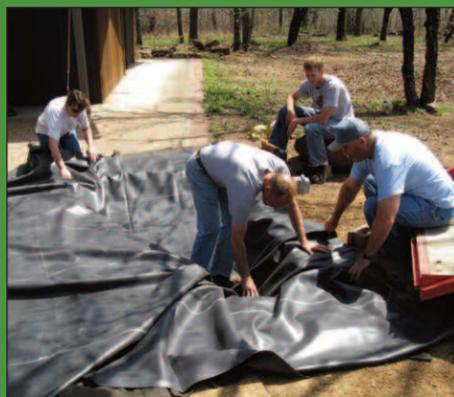
While many people enjoy bubbler rocks simply for the gurgling sound they produce, we naturally had bird attraction as a primary goal for our project. When selecting a bubbler rock, either look for one with a shallow basin suitable for bathing, or design your feature to include such a basin below the flow of water from the bubbling rock. Depending on the size of your pump, hose, and hole in the rock, the output from the top of the rock may be a little too vigorous and could frighten rather than attract



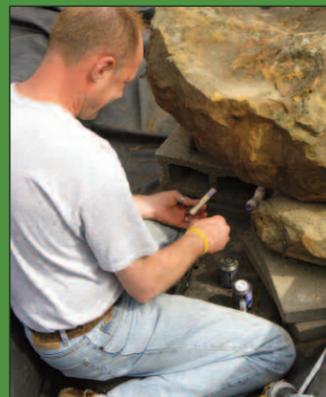
After deciding on the location for our rock bubbler at the front of our administration building, a hole was dug to accommodate the water and the perforated bucket we used to house our submersible pump. Also note the electrical outlet recently installed next to the hole.



This rock on our property has two natural, shallow basins on one side. A hole has been drilled through the rock using a long carbide drill bit to allow the water to be pumped through the rock. Suitable rocks in various sizes are available pre-drilled at pond supply businesses.



Rubber pond liner was placed in the hole and trimmed to size, leaving enough overlap around the edges to accommodate some rocks and hold it in place.



Cinder blocks formed a stable support for the bubbler rock within the hole. PVC fittings and flexible hose were used to connect the submersible pump to the hole in the bottom of our bubbler rock.

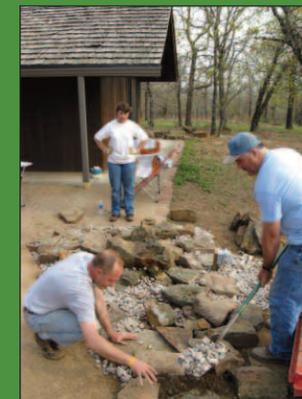
Continued from page 8

birds. We have placed a rock over the opening of ours to moderate the flow and deflect the water into the two separate basins of our bubbler rock. The materials for a project like this are readily available at large home centers, although pond and landscaping stores (such as Hardscape Materials in Bixby, OK and Pond Pro Shop in Shawnee, OK) may have a larger selection of pumps, rocks, and liners, and often have functioning outdoor displays to provide inspiration. They can also do the installation for you.

Our project has been a great success. In just five months we have seen about 20 species of birds on our bubbler, and not a day goes by without drinking or bathing activity. On one day in May, a Tufted Titmouse, White-breasted Nuthatch, Black-and-white Warbler, American Goldfinch, and Summer Tanager were all seen on our bubbler at the same time! The winter months and the middle of summer in Oklahoma are often challenging times for birds to find adequate water for their daily needs. We have already been through our first summer, and have been told to expect our bubbler to keep flowing during Oklahoma’s relatively mild winters, so our local bird population should be taking advantage of this helping hand for many months to come. The staff of the Sutton Center thanks the helping hands of the volunteers and donors who contributed to our latest landscaping improvement project.



After the bucket that contains the pump was settled into place, much of the hole was filled with cinder blocks and large rocks collected from our property.



The pond liner edges were covered with large rocks, and decorative river rock was used to fill in the gaps. A garden hose soon filled the hole with water once this step was finished.



Here is the finished water feature in operation.

Margie Nolan Leaves Sutton

by M. Alan Jenkins



Our Director of Development, Margie Nolan, has left the employ of the Sutton Avian Research Center after having served us since signing on in February 2007. Margie’s main duties were to help raise funds and coordinate some of our special events. She worked diligently and successfully with the 2007 and 2009 WildBrew committees to bring in significant donations from the types of large donors we classify as WildBrew Sponsors.

Her favorite Sutton Center project was the annual Sutton/NatureWorks awards program which recognizes the environmental artwork and other creative activities of Oklahoma secondary students. She particularly enjoyed working with the state’s dedicated art teachers and their visionary followers; she was “impressed by the range of talent and the quality of ideas shown in the entries.” Margie worked with this group of inspiring people during 3 awards ceremonies.

Other special fund-raising events she successfully worked were our annual Sutton National History Forums sponsored by the F&M Bank of Tulsa. The Forum brought award-winning photographers from the National Geographic Society to talk to area schools about their work, and then to speak to a group of donors at our F&M auction. She was also a major organizer of Sutton’s annual BBQ picnic that serves as a thank-you event for our donors and members.

Margie will continue as a part of the Sutton family through volunteering at various events—in fact, she is helping right now! We will miss her humor and always high morale around here; but we wish her and her husband Joe well and good wishes for the future.

The Sutton Newsletter 9

Sutton Center's 2009 Publications

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