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Eastern Phoebe at the Sutton Center - Photo by Dan Reinking



Your generous donation helps us with our mission of “finding cooperative conservation solutions for birds and the natural world through science and education.”
Join us in protecting our natural heritage for the next generation!



UNCOVERING THE SECRETS OF SAGE-GROUSE MIGRATION

VOLUME 61 | WINTER 2023

“finding cooperative conservation solutions for birds and the natural world through science and education”



TABLE OF CONTENTS:

- 1 A Letter from the Executive Director
- 2 Migration and the Greater Sage-Grouse, Part 1
- 5 WIN BIG at Wild Brew
- 6 Planned Giving
- 6 Intern Spotlight
- 7 15th International Grouse Symposium
- 9 Together is Best— an Imprinting Test
- 10 2023 Bald Eagle Nest Monitoring Data
- 11 Oaks and Prairies Joint Venture
- 13 Expanding our Educational Outreach
- 14 The Sutton Award
- 15 Attwater's Prairie-Chicken Updates
- 16 Wild Brew
- 17 About my Neighbors...
- 18 Go Paperless
- 18 Recent Publications
- 19 Year Review
- 20 Planned Giving
- 21 Volunteers
- 22 Thank You, Supporters!

ON THE COVER:
Greater Sage-Grouse
Photo by Mark Gocke

A Letter from the Executive Director

Dear Sutton Center friends,

Changes are inevitable, some for the good, others not so. Overall, we have had a great year – lesser prairie-chickens and atlas blocks surveyed, greater sage-grouse tracked and fences improved for them, five interns trained raising endangered birds, 202 Attwater's prairie-chickens raised, 1100 masked bobwhite hatched with 41 foster families flown to Arizona (Thanks, LightHawk!), ~350 bald eagle nest territories monitored including two chicks successfully fledging on our web cam, and we are touching even more lives with our charismatic animal ambassador programs. Wild Brew proved again to be the best party ever hatched, thanks to the help of many volunteers, restaurants, breweries, artists, sponsors, and supporters.

It is important to share our research and conservation efforts, and we are very grateful to two of our board members who helped us attend the International Grouse Symposium in Poland. It is hard to put a value on the scientific exchanges, inspiration, and experiences, but it was certainly more than the cost, so “thank you very much Barbara and Lisa!”

Houston Zoo just hosted a meeting to determine the best genetic pairings among the Attwater's prairie-chickens next season. This was the first in-person meeting since January 2020, and being in the same room together makes a difference (especially with a live gorilla peeking over our shoulders – he also seemed interested in prairie-chicken match making). The meeting continued at NASA Johnson Space Center, where Houston Zoo's new chick-raising facilities have been built. We went out to the Attwater Prairie Chicken National Wildlife Refuge the next day and watched a male booming, even though he was lacking pinnae and the bright orange air sacs that are prominent during the breeding season, and we also saw nine Attwater's prairie-chickens take to the sky. I am always impressed with how fast they fly.

We value our collaboration with U.S. Fish and Wildlife Service, but the fact is that their available funding has decreased while their costs go up and up. This leaves uncertainty in regards to our work with endangered species. The recovery statistics for the two species that we raise in captivity is looking better than in decades; nonetheless, no federal funding was appropriated for our work during the last grant cycle, despite the service's mandate to recover endangered species. Americans passionate about conserving and restoring wildlife can lobby their legislators to allocate more federal funding for wildlife conservation.

This shortfall leaves our Attwater's prairie-chicken and masked bobwhite programs in jeopardy. To continue, we need support from people like you who care about saving endangered species. These programs are already successful, but with your help, they can be sustainable. Donations now will help fill the funding gaps, aid in securing matching dollars and keep the focus on recovering these birds that may otherwise go extinct. We and our partners are working on solutions, and if you can help, or have contacts who can, please call 918-336-7778 or email me at llarsson@suttoncenter.org.

We so much appreciate your support of the birds and the natural world that we cherish; thank you!

Lena Larsson, Ph.D.
Executive Director

Migration and the Greater Sage-Grouse, Part 1

by Aaron Pratt

In this newsletter issue I am going to continue the series on grouse movement behavior. A version of this article was previously printed in *Grouse Partnership News* (20th Anniversary Edition, Fall 2019, P28-31) and data presented are from multiple projects with multiple collaborators, especially the University of Wyoming.

Migration is a common behavior found in all major taxa from insects to crustaceans to reptiles to mammals and so on. A fifth of the world's species of birds are considered long-distance migrants. There is beauty and wonder associated with natural phenomena such as migration. Migration evokes images of vast herds of wildebeest moving across the Serengeti. It can also be a familiar reminder of the changing of the seasons, like how a harmonious flock of geese pointed south can create a previously unnoticed chill in the air. I dare you not to feel it while reading Rachel Field's words:

*Something told the wild geese
It was time to go,
Though the fields lay golden
Something whispered, “snow.”*

*Leaves were green and stirring,
Berries, luster-glossed,
But beneath warm feathers
Something cautioned, “frost.”*

*All the sagging orchards
Steamed with amber spice,
But each wild breast stiffened
At remembered ice.*

*Something told the wild geese
It was time to fly,
Summer sun was on their wings,
Winter in their cry.*

Rachel Field 1934

Greater understanding results in greater appreciation of natural phenomena. Until it was discovered, we could not marvel at the bar-tailed godwit, which flies over open ocean without stopping for 7,000 miles from Alaska to New Zealand; or, the bar-headed goose which climbs 25,000 feet in one flight to ascend



The expansive landscapes of the west provide room to roam for sage-grouse.

the Himalayas. Grouse do not arouse these same images, at least relative to interseasonal movements, because they are not readily observable, nor do they necessarily demonstrate such phenomenal physical feats. However, their behavior still contributes to the diversity of movement found on our planet when animals react to their changing environment.

The oldest acknowledgments to seasonal movements by animals are documented in the Old Testament, with references in the books of Job (Job 39:26) and Jeremiah (Jeremiah 8:7; circa 600 BC). The next references were from Aristotle (circa 350 BC) when he recorded the times of departure for species in his area. Much more recently, advances in technology, first via banding, then by the radio-transmitter, assisted in studying movement at the individual level

instead of only documenting the redistribution of populations. These first marking techniques showed where animals started and ended but did not provide much detailed information on the routes taken. This information was made more readily available with the advent of satellite and GPS transmitters with high location fix rates. Continued technological advancements have led to individually marking smaller and smaller species with higher and higher performing transmitters resulting in more questions being answered. For example, one can now use data obtained from high fix rates with GPS transmitters to estimate individual movement paths at high resolution allowing for investigations of the factors influencing an animal's decision on when and where to move. This has been the case for the greater sage-grouse (Figure 1).

Migration, like many ecological phenomena, is difficult to define. But the pragmatic definition describes an animal as migratory if it demonstrates the use of seasonally dependent non-overlapping ranges. Non-overlapping ranges represent infrequent movements on a greater spatial scale connecting distinct areas of frequent, smaller scale movements termed 'station-keeping' activities. In addition, the use of these ranges corresponds with the periodicity of seasonal habitat use on the annual cycle. This is demonstrated in Figure 2 which shows the displacement (distance from each location to the initial location) of an individual grouse tracked for more than a year. Sage-grouse normally have three seasonal habitat requirements: breeding (for females this is where they nest), summer (where they seek out mesic areas with food during dry season), and winter (with adequate sagebrush above the snow). In this figure you can see the areas used for each season are distinct from each other and the grouse returns to the same areas in the subsequent year. In addition, the movement required to reach each of these seasonal ranges is greater than the typical movements required within each seasonal range. By definition, migration does not have to be difficult, though it is for many species. I do not think it is particularly difficult for sage-grouse to migrate because we have observed grouse do 'test' migrations when they migrate towards, or all the way to, their next seasonal range and then return, apparently because the timing was not quite appropriate yet. This is shown by the individual in Figure 2 who did two initial migration events when leaving summer range before she finally switched over to winter range.

In the context of seasonally dependent non-overlapping ranges, the majority of individual sage-grouse would likely be classified as migratory. We conducted sage-grouse studies in the Bighorn Basin of Montana and Wyoming and in central Wyoming where 74% of our GPS-equipped sage-grouse were classified as migratory. Using this perhaps more liberal definition, many grouse species would show some form of migratory behavior if they must consistently travel farther than their normal daily movements between different seasonal habitat requirements. A familiar example is dusky grouse traveling from mountain sagebrush plant communities where they



Figure 1. Track of ~69-mi migration over 21 days (12 Apr–2 May) between winter and breeding range for a female greater sage-grouse in western Wyoming. Points in full image are night roosts with distance between subsequent nights displayed. Inset image shows every location recorded over a two-day stopover. Multiple-day stopovers are identified by the number of days. Imagery from Google Earth.

nest to higher elevation conifer forests where they winter. A less familiar example are greater prairie-chickens in the Nebraska Sandhills that travel from grass-dominated rangeland where they nest to areas with more cropland where they winter. We propose sage-grouse as an excellent example of how migratory and resident behavior for a species, or population, falls along a continuous gradient. Sage-grouse can have two seasonal ranges that are 0, 1, 2, ..., 10, 11, 12, ..., 20, 21, 22, ..., 100, 101, 102, ... miles apart, with any amount of overlap of ranges and any distance along a continuum between ranges. Figure 3 shows the observed distances between seasonal ranges (all distances not just migrations) from our Bighorn Basin and central Wyoming project. Seventy-five percent of the observed distances were 10 miles or less (median = 5 mi). The maximum observed distance between seasonal ranges was 57 miles. The largest documented sage-grouse migration is about 100 miles connecting breeding habitat in Saskatchewan and winter habitat in Montana. Given the continuum of interseasonal distances, it is difficult to derive an objective, crystal-clear cut-off between resident and migratory behavior in sage-grouse.

The interseasonal distance for the individual in Figure 1 located in western Wyoming was 65 miles, so it is an above-average bird but not a record breaker. When migrating, grouse typically fly most of the daily

distance first thing in the morning and then apparently spend most of the rest of the day resting and foraging. For this grouse about 80% (range: 45–100%) of its daily displacement (range: 1–9 mi) was from its largest movement during the day (range: 1–7 mi). So, this grouse was flying 80% of the distance each day in about 4% (~37 min) of the time when it is light enough to fly (or 2.6% of the whole day including night). For 86% of the days, its largest movement was first thing in the morning starting during twilight. More specifically, about 24 minutes before civil twilight (54 min before sunrise) during the period known as nautical twilight. Nautical twilight is when the horizon just becomes visible and most stars are still visible. For hunters, this is 24 minutes before you can legally shoot a firearm which begins at civil twilight. For those that have sat in a blind to observe displaying prairie grouse this is also about the time they fly into the lek in the morning. So, grouse start flying for miles when you and I would need a flashlight to walk around, and they finish by sunrise. For the couple of days when the largest movement was not during twilight in the morning, it was during twilight in the evening. These are statistics for just one migration event from just one bird but they are fairly representative of typical sage-grouse migration movements.

Migration stopovers in birds are usually defined as a pause in their migration movements to replenish

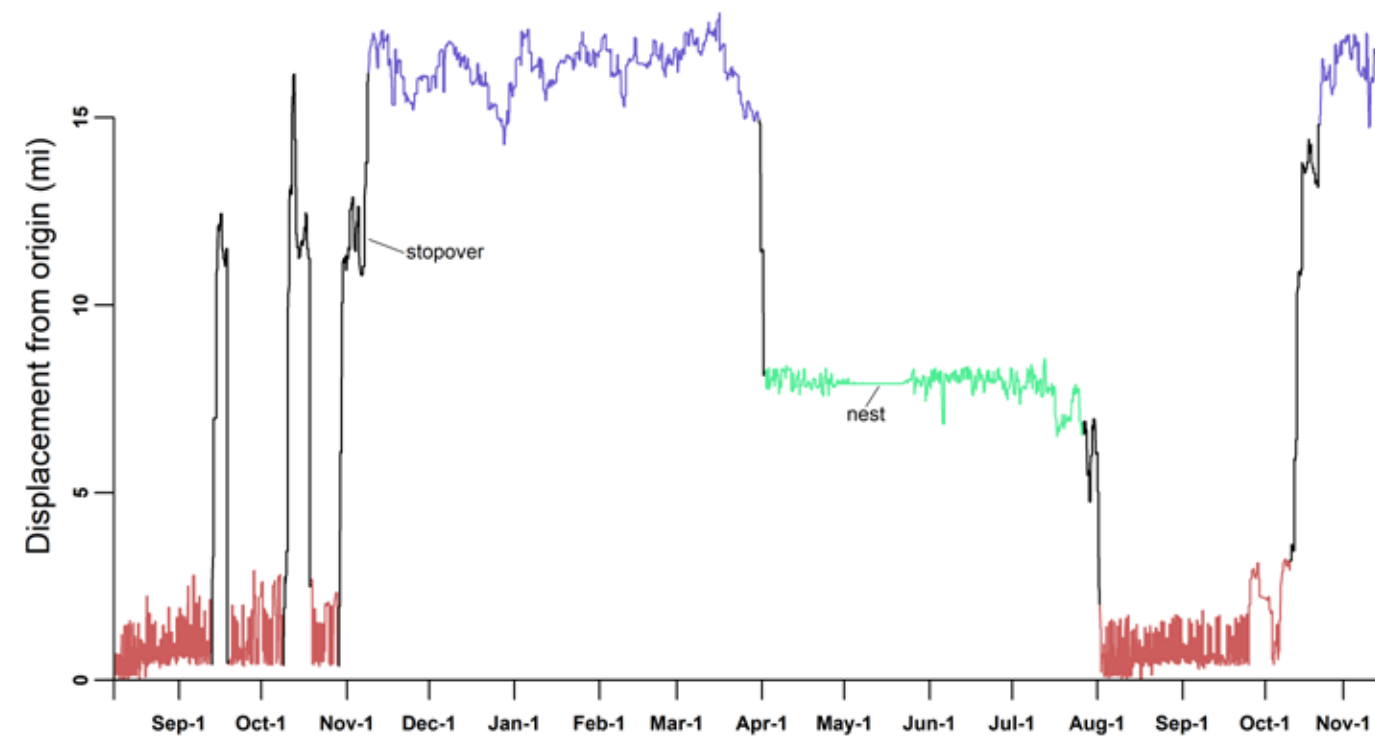


Figure 2. Displacement from origin location for each location recorded over one year for a female greater sage-grouse. Locations on summer range are in red, winter range in blue, breeding range in green, and while migrating in black. This individual had its breeding and summer range in Montana but wintered in Wyoming.

fat reserves before continuing on. Because migration is not particularly physically difficult for sage-grouse, multiple-day stopovers are probably more just a tactic to adjust timing of movement to the changing of resources. The grouse in Figure 1 had three multiple-day stopovers early on in her migration. When she started migrating, it was well past the normal timing for leaving winter range but winter conditions were still persisting. The stopovers were slowing her migration down, but as spring started progressing more quickly her speed also increased. In the first half of her migration, she had only covered about 11 miles, while covering the remaining 58 miles in the second half. Movements within a stopover (Figure 1 inset and Figure 2) are more similar to 'station-keeping' movements within a season than the typical, more straightened out movements of migration.

In this issue I described what sage-grouse migration is and how they migrate. In the next issue of our newsletter, I will present more details on sage-grouse migration behavior especially relative to their different seasonal habitat requirements. *To be continued...*

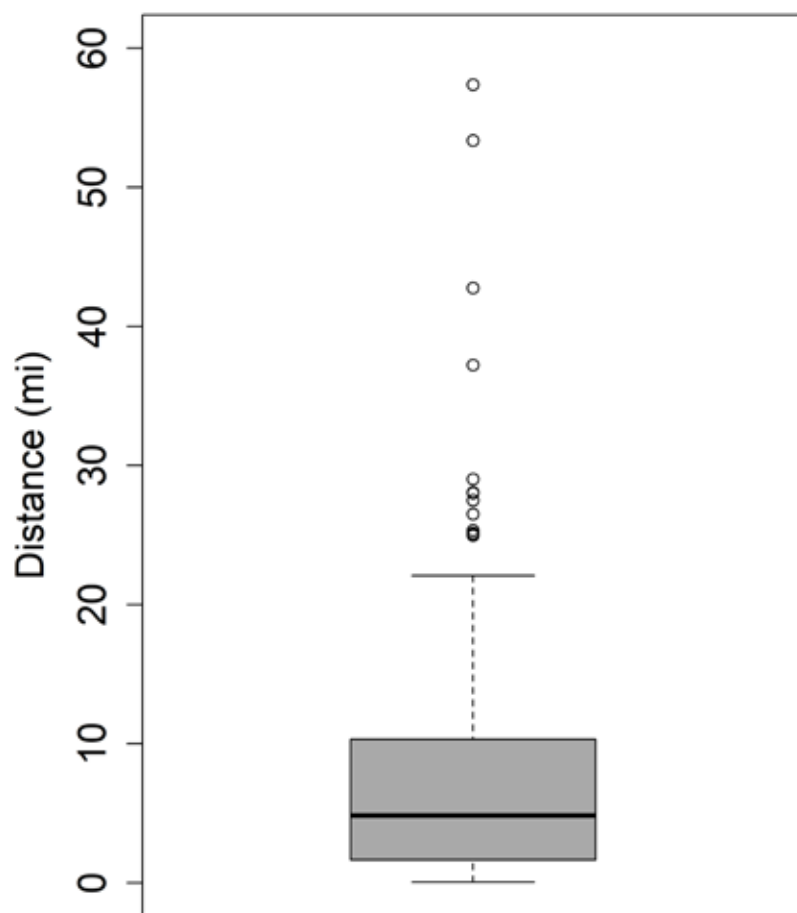


Figure 3. Boxplot of distances between seasonal ranges (n = 320; 99 grouse).



It's All About Perspective, OUR FUTURE

Charitable donations support many good causes, including the Sutton Center. But have you considered designating a gift from your estate? Wealth is not a prerequisite. Planning for the future health of our natural world and the people who rely on it by investing in a lasting gift to the Sutton Center can help ensure the kind of future you desire for the next generations.

A planned gift is one of the most impactful ways you can support the Sutton Center's critical conservation work while accommodating your own personal, financial, estate-planning, and philanthropic goals. With smart planning, you may actually increase the size of your estate and/or reduce the tax burden on your heirs and gain the satisfaction of knowing that you are helping to ensure the future of the Center and its many programs for generations to come.

Did you know? Even a gift in your will of 1% of your estate can make a difference.

Creating a legacy gift is a thoughtful process that will benefit from professional advice. A financial adviser can help you determine how best to accommodate the needs and priorities of you and your loved ones, as well as approximately how much you may be able to pass on to a charity like the Sutton Center and how best to do it. For more information or a conversation, please reach out to Audra Fogle, Assistant Director, at any time via email afogle@suttoncenter.org or by calling the Center at 918-336-7778.

The Sutton Center has a four-star rating with Charity Navigator and is a GuideStar Platinum participant.



THANK YOU FOR YOUR SUPPORT

Bailey McVey, *Aviculture Intern, to Technician*



Bailey holds a young Attwater's prairie-chicken at the Sutton Center.

Throughout my internship, I knew I wanted to stay and continue working with the Attwater's prairie-chickens. The aviculturists made it their mission to give you hands on training so that you can secure a job afterwards. At most internships you don't get to do a ton of bird handling and getting to have that experience has been incredibly beneficial. Another incredible aspect of interning with the Sutton Center is that you get the opportunity to work with other species. I got to work with masked bobwhite quail during their breeding season and I loved it. Most of all, I love that the Sutton Center hires on past interns when there are positions available. I am so blessed to be a part of the Sutton Team as a staff member!

15th International Grouse Symposium – Better Late than Never!

by Don Wolfe and Aaron Pratt



Greater Sage-Grouse

Photo by Noppadol Paothong

Urophasianus centrocerus

Range – North America

Habitat – Sagebrush steppe

Winter diet – Sagebrush leaves without a thick-walled gizzard

Size – Largest grouse in Americas

IUCN status – near threatened

USA status – gamebird but declining



Western Capercaillie

Photo by Eric Bellon

Tetrao urogallus

Range – Eurasia

Habitat – Pine forests

Winter diet – Pine needles aided by muscular gizzard with grit

Size – Largest grouse in world

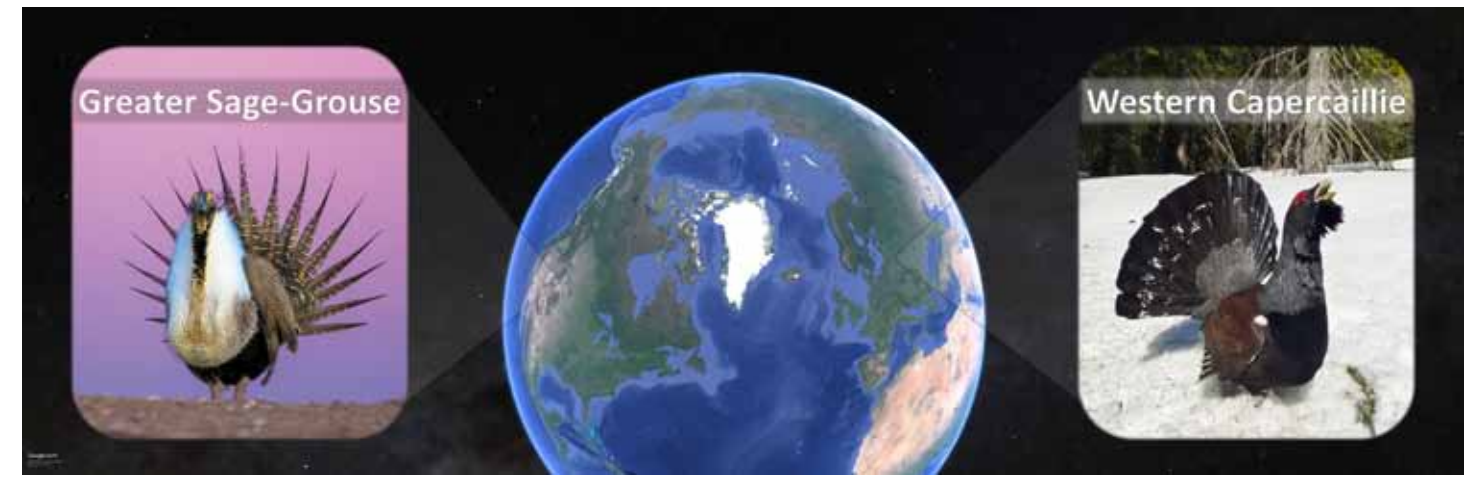
IUCN status – least concern

Poland status – critically endangered

As reported in the most recent Sutton News, there was a two-year delay in grouse researchers and managers gathering together to share research and conservation updates, but the 15th International Grouse Symposium (IGS) finally happened in September 2023. Thanks to the personal generosity of two of our Sutton Center Board members, Aaron Pratt, Don Wolfe, and Lena Larsson were able to attend the IGS in Białystok, Poland. In addition to the wonderful hosts from Poland, there were also attendees from Austria, Belgium, Czech Republic, France, Germany, Italy, Japan, Netherlands, Norway, Scotland, Spain, as well as others from the USA.

First, you may be wondering exactly what a grouse is. At present (because taxonomists frequently make minor adjustments), grouse are a group of birds in the order Galliformes (gamefowl-like birds), family Phasianidae (mostly Old World gamefowl like pheasants, partridge, chickens, etc.), and subfamily Tetraoninae with 19 species and numerous subspecies in North America and Eurasia. They can be found in tundra, forest, shrubland, and prairie (only in North America) habitats. Grouse are circumpolar in the Northern Hemisphere with seven species restricted to Eurasia, 10 species in North America, and two species (both tundra grouse) that are truly circumpolar. What makes grouse unique from other Galliformes are their cold-climate adaptations. They have feathered tarsi and nares, feathers or pectinate scales along the side of their toes that act like snowshoes, they burrow under the snow for warmth, and they have well-developed intestines and ceca to digest low-energy foods available during winter. Grouse are traditionally a popular group of species, tied to folklore, culture, and hunting, with many species now popular among bird watchers during spring mating rituals.

Globally, according to the International Union for Conservation of Nature, 12 species are classified as Least Concern, five species as Near Threatened, one species (lesser prairie-chicken) as Vulnerable, and one species (Gunnison sage-grouse) as Endangered. Regionally, status is more variable with some species with global populations that are not at risk but have more local populations or subspecies that are critically endangered. The population reports at IGS on black grouse and capercaillie (the western capercaillie is the largest grouse in the world and native to Eurasia) throughout most of their range in Europe were discouraging; the only exception being in Scandinavia, where the populations are seemingly stable, and both species are highly regarded by upland bird hunters. However, multiple captive breeding facilities have been established for both of these species, which, along with advancements in sperm cryopreservation and artificial insemination techniques may lead to population recoveries, especially when combined with intensive habitat management and protection of critical habitat from non-compatible recreational use.



Greater sage-grouse credit: Noppadol Paothong, western capercaillie credit: Ilse Storch, Earth Imagery by Google Earth

Not surprisingly, due to the European location, there were more presentations on capercaillie (23) than any other species, but there were also many talks focused on black grouse (14) and North America's greater sage-grouse (13). Most importantly, though, is that much of the information gained on those grouse can benefit other species as well. Lena Larsson gave a presentation on our Attwater's prairie-chicken captive breeding program, and Aaron Pratt presented on a Attwater's prairie-chicken population viability analysis. We also presented a poster on prairie grouse trapping methods.

A mid-conference field trip to the Augustów Forest included a visit to a capercaillie release site where

chicks are raised by their mother in release pens (aviaries to our Polish colleagues) but are able to disperse into the forest as they mature. We also visited the local capercaillie breeding facility and enjoyed an unexpected concert in the Jewish White Synagogue in Sejny. The concert consisted of a band that played Klezmer music, in honor of the 400+ Jewish population in the village that was forcibly removed in 1939, never to return. This was truly a moving experience and was greatly appreciated by all attendees.

In keeping with the intended three-year schedule, the next International Grouse Symposium is planned to be hosted in Norway in 2026.



Together is Best – An Imprinting Test

by Morgan Anderson and Lily Grant



Imprint female bonding with chicks inside the brooder. Photo by Lily Grant

For the past six years, the masked bobwhite program has used a fostering method to assist young chicks in adjusting to life in the wild. The chicks are given protection, warmth, and skills from the foster parent to improve their chance at survival.

Our fostering method uses an adult quail, typically a one-year-old male. He is placed in a small black box that is modified for bird use. Up to fifteen chicks are placed with the adult, and the chicks will find their way to him to seek warmth. When they brush up against the male, on instinct he will lift his wings to gather the chicks under his feathers. This in turn creates a bond, resulting in a foster family.

However, fostering is not guaranteed for each adult. Adults can have varied reactions to the chicks. Some exhibit a calm demeanor, while others can be restless (pacing or jumping).

Imprinting is a new method we began implementing in 2022, that allows a smoother transition for the fostering process. This method helps both chicks and adults become accustomed to each other at an earlier stage. The adults are put in separate tabletop brooders a couple of days before a hatch so they can get acclimated to the new environment. The chicks are placed directly from the hatcher to a temperature-controlled brooder (90°), where they can stay warm and learn to forage.

The adult becomes accustomed to the chicks, and vice versa. The chicks stay in the brooder for a couple of days to get stronger before they are moved into a foster box with a parent.

Through this technique, we found that when placing chicks with the imprint parent in the box, the parent would almost immediately brood the chicks. In contrast to a non-imprint foster parent, the imprint parent shows a calm demeanor, calls to the chicks, and protects them from outside threats (i.e., the aviculturists!). This imprinting method allowed for an easy fostering process not only for the birds but also for the aviculturists. When putting the chicks with an imprint parent, it was less stress for us as well. We didn't have to worry about the parents jumping and possibly injuring the chicks.

In 2022, out of 9 imprint yearling males, 8 were successful fosters. In 2023, out of 7 yearling males and 7 yearling females, 11 total were successful fosters. We define a 'successful foster family' as an established family unit that is transferred to Arizona after roughly 2 weeks.

Overall, the imprinting method has advantages for both chicks, foster parents, and aviculturists. We plan to use this process next year and will collect more data for potential fostering improvements in the future.



Eggs from multiple pairs of masked bobwhites are individually marked to track parentage, but are incubated at the same time so they hatch on the same day. Photo by Christina King



Photo by Henry Hawkins

2023 BALD EAGLE NEST MONITORING DATA

344
NESTS CHECKED

>324
FLEDGLINGS

297
CONFIRMED ACTIVE

311
OCCUPIED
TERRITORIES

Thank you to our Bald Eagle Survey Team volunteers!
Interested in joining BEST? Scan the QR code or call the Center!

Oaks and Prairies Joint Venture

A regional partnership for bird conservation

by Dan Reinking



OPJV coordinator Robert Perez (left) with Oklahoma Department of Wildlife Conservation regional supervisor Jeff Pennington in a north Texas native grassland overlooking the Red River Valley.



The GRIP program helps landowners pay for maintaining and improving grassland habitats.



Prescribed burn associations help landowners implement fire maintenance on their properties.

Waterfowl numbers were dwindling. The time was the 1980s. Many species of ducks had populations declining at alarming rates. Widespread concern led to the passage of the North American Waterfowl Management Plan in 1986, which among other things called for an “all hands on deck” approach to reverse declining waterfowl numbers. One recommendation was the establishment of regional “joint ventures” to cooperatively involve many different partners in planning and implementing strategies to increase waterfowl numbers. The Lower Mississippi Valley Joint Venture was the first to be established in 1987, followed just months later by the Prairie Pothole Joint Venture. More joint ventures were created in subsequent years from coast to coast. Well-planned conservation efforts began showing successes within a decade, and waterfowl populations are today generally much larger than they were in the mid-1980s, despite ongoing challenges.

By 1999, joint ventures began expanding their focus to include other birds besides waterfowl, and the number of joint ventures continued to grow, with the Oaks and Prairie Joint Venture (OPJV) being established relatively recently in 2008. The Sutton Center participated in the first major OPJV planning meeting in 2008, and joined the OPJV management board the following year. Covering nearly 60 million acres in portions of central Texas and Oklahoma, the OPJV is home to several major and growing metropolitan areas as well as many grasslands and savannahs. The prevalence of grasslands in this region led to several grassland-associated birds being identified as high priorities for conservation actions within the OPJV, including dickcissel, eastern meadowlark, northern bobwhite and painted bunting. Depending on the specific area within the OPJV, cultivation, conversion from native grasses to non-native livestock forage, and redcedar encroachment in grasslands are just a few of the challenges facing native birds within the region.

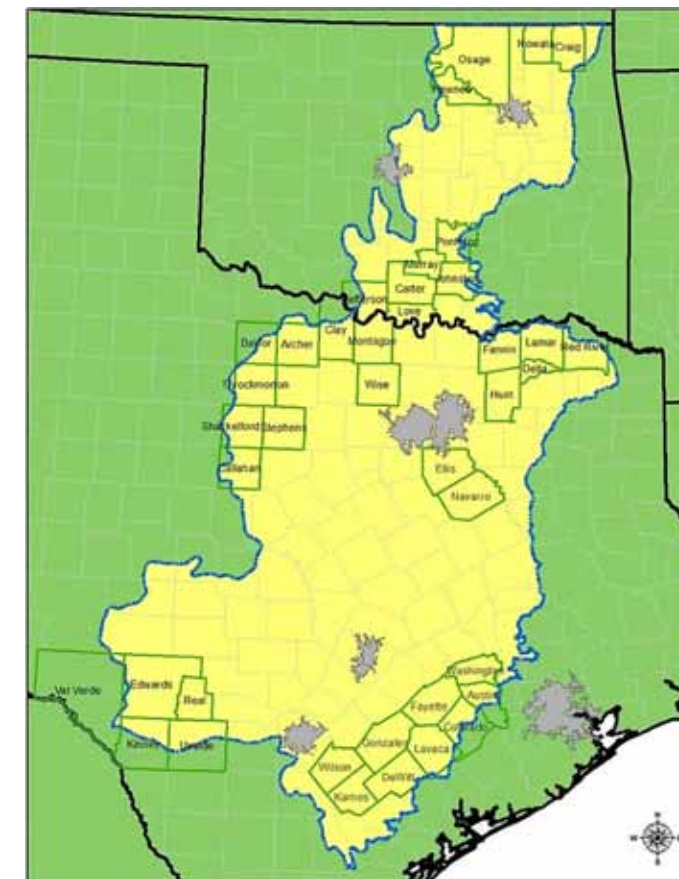
Having identified focal species for conservation actions, OPJV developed a landowner incentive program called the Grassland Restoration Incentive Program (GRIP) in 2013. Staff known as conservation delivery specialists or coordinating wildlife biologists were hired to work directly with private landowners in selected focal areas of the OPJV to help advise with land management, offer GRIP-funded incentives, or help direct landowners to other available habitat improvement programs. The menu of GRIP incentives includes payments to help offset the costs of land management practices that maintain or restore native grasslands. Brush removal and prescribed fire are two commonly implemented practices, with the latter being especially effective as well as economically efficient. Technical assistance with project implementation can also be provided, and OPJV is active in promoting prescribed burn associations in Oklahoma.

Implementing projects and measuring the effectiveness of landowner habitat improvement projects at a meaningful scale in an area as large as the OPJV encompasses is a daunting task. The dedicated people working in the OPJV partnership have assisted landowners in implementing grassland habitat improvements on over 120,000 acres already, and work continues

to expand the program in Oklahoma and Texas. In addition, seasonal technicians have been conducting roadside point counts for grassland birds to provide data that will help assess the effectiveness of OPJV programs at actually increasing these bird populations within the region.

The conservation successes of joint ventures and other efforts have increased waterfowl populations 56% since 1970, while North American birds as a whole have declined 29% during the same time frame, including declines in 74% of grassland species (Rosenberg et al. 2019. Decline of the North American Avifauna. Science 366: 120-124). With a high proportion of grasslands (or former grasslands) in the OPJV region, there is a correspondingly high responsibility to conserve grassland bird populations here.

The collaborative nature of joint ventures fits the Sutton Center’s mission of “cooperative conservation solutions” for birds, and with grassland bird populations in greater decline than other groups of birds, the work of the OPJV is particularly relevant to our mission. Joint venture successes with waterfowl populations show what is possible, and many joint ventures are now working diligently on behalf of grassland birds to replicate those conservation successes.



The Oaks and Prairies Joint Venture region in Oklahoma and Texas, with focal counties outlined in green.

Oaks and Prairies Joint Venture Management Board Member Organizations

- American Bird Conservancy
- Audubon Texas
- National Wild Turkey Federation
- Native Prairies Association of Texas
- Noble Research Institute
- Oklahoma Department of Wildlife Conservation
- Oklahoma Prescribed Burn Association
- Pheasants Forever Inc./Quail Forever
- Quail Coalition
- Sutton Avian Research Center
- Texas Parks and Wildlife Department
- Texas Wildlife Association
- The Nature Conservancy
- US Department of Agriculture – Natural Resources Conservation Service
- US Fish and Wildlife Service



Expanding our Educational Outreach

by Daniel Harris



What an exciting year it's been! We have expanded into new partnerships with old friends and brought the love of birds to exciting places. This year, we were thrilled to be part of educational programs and on display for visitors at Woolaroc Museum & Wildlife Preserve. Frank Phillips, the founder of Woolaroc, is noted as saying, "The conservation of wildlife now will mean much to future generations." We couldn't agree more. This is why we continue our mission of conservation through science and education. We are bringing birds to the classroom with a message that we have a voice in what our future looks like and a collective responsibility to conserve natural spaces and species.

In addition to our increase in outreach programs, we expanded the intern program for those interested in learning more about husbandry care and those planning on pursuing a career working with wildlife. For some students, this means learning about bird motivations and established training techniques for different species. One of the first lessons in training is learning how to watch for and reinforce the behaviors you want to see. With a little patience, a focused eye, and a pocket full of treats, it's amazing what a bird will do! Other students are helping design and create species-specific spaces for enrichment and training. We call these antecedent arrangements as they set up training space to promote success before the trainer ever enters the chamber. The students gain an understanding of care that promotes the highest welfare for our birds. Species specific care leads to happier, healthier relationships with trainers, and

ultimately the best possible experience when we bring our birds out to the world.

We have been thrilled to have focus stories in news outlets around Green Country. If you missed us at Wild Brew, River Parks, Conservation Days, county fairs, local libraries, nature centers, or one of our many other events this year, be sure to follow us @suttoncenter where you access media information, and we hope to see you in 2024! For private tours and events or to have the Sutton Center bring birds into your classroom, email dharris@suttoncenter.org.



The Sutton Award

Help Us Inspire Young Conservationists
Across Oklahoma

Established in 2005, the Sutton Award recognizes high school students who demonstrate the ability to communicate current wildlife conservation topics in compelling ways. The Sutton Award is comprised of up to \$20,000 in cash which will be distributed to winning student submissions and their instructors. In a day when young people are becoming further and further removed from our natural world, this award sparks conversation in the classrooms and encourages students to wrestle with issues of conservation in such a way that they learn THEIR story as they work to inspire others.

This Sutton Center education program is transformational, and we want to make sure every Oklahoma student has an opportunity to enter! Thanks to the assistance of the Department of Art Education, the Oklahoma Art Educators Association and the Oklahoma Department of Wildlife Conservation, we are able to extend our invitation to even more students across the state. It is EXCITING to see students come alive while talking about the current conservation issue represented in their artwork!

Through conversations with former winners, art teachers, parents and judges, it is REWARDING to know that we are supporting this new excitement in such a way that it can open up a career path, awake passion for a lifetime of wildlife conservation, and have ripple effects that inspire students and others to protect our natural world.

We are already working closely with our partner, NatureWorks, to make this another memorable event for our students and their teachers through the opportunity to display winning artwork alongside world-renowned artists at the NatureWorks Show and Sale. Join us in promoting this unique award in Oklahoma through sharing the opportunity with high school students, making a donation, attending the NatureWorks Show February 24 and 25th or even purchasing a student's artwork. Visit www.suttoncenter.org for all the details and to download flyers and forms. Contact Audra Fogle at afogle@suttoncenter.org or 918-336-7778 for more information or to make a donation.

Thanks to a new partnership with the Oklahoma Sculpture Society, student sculptors had the opportunity to display their wildlife-focused artwork at the annual OSS show and compete for prizes in October at Broken Arrow's Arts@302 Gallery.



What a Season!

by John Hoolihan

The Attwater's prairie-chicken breeding facility continues to increase production levels. In 2023, a total of 202 chicks survived to the benchmark age of 8 weeks – a 22% increase from the season before. For the first time, all of our breeding hens produced fertile eggs. We maximized our use of fostering and outside daycare for chicks, resulting in stronger, healthier individuals. We needed to expand another prairie field to provide necessary space for rearing so many chicks. A total of 193 Attwater's prairie-chickens (181 young birds and 12 adults) were transferred to Texas for live release during the summer – a record for the Sutton Center!

Sutton Center's prairie-chicken program included hosting four interns for the 2023 breeding season and their help was invaluable to the success of our work. Two local volunteers, Katie and Charlene, were instrumental in expanding and maintaining our production of greens to feed the chicks, and we thank them for their service. One of our interns, Bailey McVey stayed with us, and she has taken over the duties of Jenna Hansen who resigned to pursue a college degree. Jenna was an exceptional employee and will be missed by all of us.



Phillips 66 Day of Caring volunteers worked on landscaping improvements at the Attwater's prairie-chicken facility. Photos by Sutton Center Staff

In early September, we were fortunate enough to have volunteers from Phillips 66. Seven volunteers devoted a day to help us clean and prepare an area for landscaping in front of our main building. This area provides a boundary delineation for the parking lot along with a display of native flowers and grasses.

We are now in the process of preparing for the 2024 breeding season. Cleaning, maintenance and repairs of breeder barns, chick buildings and prairie field enclosures are underway alongside daily husbandry routines. We are so appreciative to our dedicated staff who put in long work hours in what can often be uncomfortable weather conditions to make the Attwater's prairie-chicken breeding program a success.



Photo by Dan Reinking



The Greatest Party EVER hatched!

Wild Brew SOARS into 26 Years!

Interested in SPONSORSHIPS for 2024?

Contact the Sutton Center for more information.



THANK YOU TO ALL OF OUR PATRONS!
PATRONS SAVE BIRDS!



Photos by Tom Gilbert

About My Neighbors...

by Representative Judd Strom, Oklahoma's 10th district

You'll never hear me complain about the neighbors.

Sure, they get noisy and, I suppose, you could say they're a little bit nosey, but overall I'd say we've had a pretty good run.

In fact, the day they lost their home to a storm was absolutely heartbreaking. It happened in April of 2023.

I first came to know Wilma when I was feeding cattle in the winter of 2007. After I had unrolled a large round bale of hay and crossed the pasture to feed the cattle some cube rations, I noticed Wilma swooping down into the pasture and taking up large chunks of hay and flying off with it. Wilma is a bald eagle, you see. I watched as she carried the hay into the top of a cottonwood tree in the back corner of my barn lot; just above the barn across from my house. Somehow, that was the first time I noticed the knot of branches wedged into a crook of the great old tree.

Wilma was lining her new nest. I didn't want to drive back into the lot for fear of scaring her away but eventually I had to go home. When I did, she never budged. She stood at attention at the edge of her new home watching as I pulled into the drive. She watched as I did my chores. She watched as I turned out the horses. She watched everything I did for the next 12 years. Fred was usually around somewhere too, but it has always been Wilma's roost to rule.

Many times over the years I'd watch as visitors would stop down the road. They, also, didn't want to approach the house for fear of scaring away the eagles. They, too, were often shocked to find that the birds would not only not startle away but would often hop around in the surrounding trees to get a better view of the happenings in the lot.

I've spent many a morning drinking coffee on the porch and watching the same routine unfold. Fred would leave the nest and fly to a nearby roost and squawk at Wilma as she rearranged twigs and tidied the nest before finally joining him on the roost to soak in the warm sun and then, together, they would fly away for their daily rounds.

I am certain there has only been one Wilma. I believe there have been several Freds over the years. Two chicks have been reared in the nest most years. They



Photo by Judd Strom

fledge the first weeks of May and the little family flies away when the chicks are ready. In a few weeks, Fred and Wilma return but the young ones never do.

When the treetop blew down in a windstorm in the Spring of 2023, the nest was piled on the ground near the base of the great cottonwood pillar. I wondered where the birds would go. I wondered if they'd leave the neighborhood.

In June of that summer, 200 yards down the tree-line, in the top of another great cottonwood, I saw a few twisted branches wedged into a crook high up in the tree. I stopped and watched Wilma carry a clutch of freshly mowed hay up into the treetop. I was glad to know that my neighbors were rebuilding. They work on the nest during the day and in the evenings they fly down to the old roost to keep up with the happenings in the barn lot.

You'll never hear me complain about the neighbors.



Photo by Judd Strom



Photo by Dan Reinking

Sutton Center's Recent Scientific Publications:

Dierenfeld ES, Larsson LC, Pratt AC, and Sherrod SK. 2023. Liver Fatty Acid, Mineral, and Fat-Soluble Nutrients in Wild and Captive Greater Prairie-Chickens. *Journal of Fish and Wildlife Management* 14:195-204.

Hennig JD, Scasta JD, Pratt AC, Wanner CP, and Beck JL. 2022. Habitat selection and space use overlap between feral horses, pronghorn, and greater sage-grouse in cold arid steppe. *Journal of Wildlife Management* 87:e22329.

Smith KT, Stumpner CL, Kirol CP, Pratt AC, and Beck JL. 2023. Atlantic Rim greater sage-grouse population and habitat study: Final Technical Report. 64 pp.

Sutton Center's Recent Scientific Presentations:

Beck JL, Pratt AC, Wanner CP, and Smith KT. 2023. Development of management recommendations for greater sage-grouse winter concentration areas. 15th International Grouse Symposium, Bialystok, Poland.

Beck JL, Smith KT, Wanner CP, Pratt AC, Hennig JD, Scasta JD, and Street PA. 2023. Increasing feral horses adversely affect greater sage-grouse nest survival in central Wyoming. Society for Range Management Annual Meeting, Boise, ID.

Beck JL, Smith KT, Wanner CP, Pratt AC, Milligan MC, Coates PS, Hennig JD, Scasta JD, and Street PA. 2023. Increasing feral horses decrease greater sage-grouse nest and brood survival. 15th International Grouse Symposium, Bialystok, Poland.

Larsson LC, Hoolihan JP, Brown CL, Caster H, Hansen J, Pratt AC, Ring H, and Sherrod SK. 2003. Captive propagation of the Attwater's prairie-chicken: Updates on production and fostering methodologies. 15th International Grouse Symposium, Bialystok, Poland.

Lautenbach JD, Beck JL, Pratt AC, and Gregory AJ. 2023. Understanding sharp-tailed grouse subspecies status in south-central Wyoming. Wyoming Chapter of The Wildlife Society Annual Meeting, Laramie.

Senner P, Larsson LC, Morrow ME, Mueller J, Pardy K, Pratt AC, and Faust LJ. 2003. Living fast on the Texas prairies: Overcoming stochasticity to establish populations of an endangered prairie grouse. 15th International Grouse Symposium, Bialystok, Poland.

Wolfe DH, Pratt AC, and Toepfer JE. 2023. Modifications to walk-in traps for capturing prairie grouse on leks. 15th International Grouse Symposium, Bialystok, Poland.

Because of YOU we are CELEBRATING these ACCOMPLISHMENTS in 2023!

by Dan Reinking and Audra Fogle



GIVE NOW



CHANGES THE WORLD THROUGH EDUCATION

Over 2,000 Oklahoma children had the opportunity to experience the fierce majesty of a red-tailed hawk, the endearing calmness of a hand-reared chicken, and the incredible adaptations of owls for nocturnal hunting with our hands-on wildlife program that connects STEM learning and engages students with our natural world. More than 20,000 participated through public events.



KEEPS COMMON BIRDS COMMON

This phrase continues to be an important theme at the Sutton Center through long-term monitoring of our Oklahoma bird populations. This year, we completed the fourth year of our second Oklahoma breeding bird atlas. Taking an inventory of more than 200 bird species nesting across the nearly 70,000 square miles of Oklahoma is a critically-important and massive undertaking. Understanding which species may be declining offers the chance to help much more effectively and efficiently conserve our birds well before they become threatened or endangered.



SAVES BIRDS FROM GOING EXTINCT

This season we successfully raised and delivered for release 193 Attwater's prairie-chickens and more than 600 masked bobwhite to refuges with appropriate habitats to give our birds the best chance to thrive. The crucial work to help save critically endangered birds requires relentless, long-term focus and support.



ENCOURAGES CREATIVITY AND A FLOURISHING WORLD

We are proud to encourage young artists to delve into conservation issues with a statewide wildlife art contest for Oklahoma high school students. In 18 years, students have shared nearly 3,000 pieces of artwork with us. Both teachers and past students tell us that the Sutton Award can be the spark that raises awareness and inspires students to use their voice to help preserve our planet.



WHAT YOUR SUPPORT DOES



ALLOWS ALL AMERICANS TO KNOW OUR NATIONAL SYMBOL

The positive trend in eagle populations, helped significantly by the Sutton Center's first major project to jump start a population recovery and facilitate the reoccupation of breeding ranges, continues to pay dividends for all Americans today. Dedicated volunteers monitored 344 bald eagle territories across our great state!

Many challenges also arose during 2023.

Grant funding for some of our long-term projects proves inconsistent at times. Lightning from Oklahoma thunderstorms can (and does) break our live eagle camera, necessitating hardware replacements and difficult tree climbing, and requests for our education program are growing faster than we can currently meet.

Your support is the fuel that turns our passion for wildlife conservation into results, and we ask for your help in continuing our mission of finding cooperative conservation solutions for birds and the natural world through science and education.

- ➔ **\$50** Purchases supplies to repair netting enclosures, grow fresh greens and sow native grasses so that the birds in our care are happy and healthy.
- ➔ **\$100** Helps with basic needs like fuel to travel to schools, feed for birds and electricity to keep the lights on so that the focus can stay on finding solutions for wildlife to thrive.
- ➔ **\$250** Aids in training our staff, providing veterinary care and inspiring young people who come from across the country and throughout Oklahoma to learn to be caretakers of our natural world.
- ➔ **\$1000 +** Builds capacity to expand programs with children and youth in classrooms, adds new animal ambassadors and continues the fight to save endangered species who need us for survival.

Blended Gifts

Make Your Giving Go Further

Are you already making annual gifts to help us with our work? Consider adding a planned gift to your annual gift this year. Increase the impact of your giving, provide greater tax savings, preserve wealth for you and your family and help continue the Sutton Center's work well into the future.

A planned gift is one of the most impactful ways you can support the Sutton Center's critical conservation work while accommodating your own personal, financial, estate-planning, and philanthropic goals. With smart planning, you may actually increase the size of your estate and/or reduce the tax burden on your heirs and gain the satisfaction of knowing that you are helping to ensure the future of the Center and its many programs for generations to come.

Did you know? Even a gift in your will of 1% of your estate can make a difference.

Creating a legacy gift is a thoughtful process that will benefit from professional advice. A financial adviser can help you determine how best to accommodate the needs and priorities of you and your loved ones, as well as approximately how much you may be able to pass on to a charity like the Sutton Center and how best to do it. For more information or a conversation, please reach out to Assistant Director Audra Fogle, at any time via email afogle@suttoncenter.org or by calling the Sutton Center at 918-336-7778.

The Sutton Center has a four-star rating with Charity Navigator and is a GuideStar Platinum participant.



THANK YOU FOR YOUR SUPPORT

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Phillips 66 volunteers beautify the Sutton Center on Day of Caring.

VOLUNTEER SPOTLIGHT

Bartlesville Regional United Way brought volunteers from ConocoPhillips and Phillips 66 back to the Sutton Center for Day of Caring early this fall. More than 50 volunteers dedicated hours of their time and skills to assist with maintenance and upkeep of the Sutton Center's buildings and land. Tree trimming, landscaping, window washing, and power washing were a few of the many projects completed this year. The work of these volunteers leaves a lasting impact for years to come and allows the Sutton Center staff to continue their work *"finding cooperative solutions for birds and the natural world through science and education."* A sincere "thank you" to these groups for all of their contributions to the Sutton Center!

Thank you to Our Loyal Sutton Supporters!

October 1, 2022 to September 30, 2023

\$25,000 or more

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Memorials and Honoraria

In memory of Christa Askins, a true champion of pollinators, In memory of Linda Adkins, a true environmental protection advocate: Gary Allison. In memory of Echo Kopp: Kay Barrett. For Wild Brew in memory of Echo Kopp: Andi Boutwell. In memory of my husband who enjoyed the eagle camera: Eileen Bridge. In honor of Audra Fogle: Jan & Vonnie Graham. In memory of Lee Holcombe: Elizabeth B. Kane. In honor of Dr. Rob Leak and Danette Cassetty, In honor of Dione Leak, In honor of the Drs. Brenda and Kenneth Lehman Family, For the birthdays of Chris and Heather Fagan, In honor of the Heather and Dr. Chris Fagan Family, In honor of Andy Lehman's birthday, For the birthday of Chris Cassetty, In honor of the Danette and Dr. Chris Cassetty Family: Genny and Dr. Kirby Lehman. In honor of Mark and Mary Peterson: Harold Peterson. Merry Christmas and a Happy New Year to Cheri & Harvey Tatum: Leslie & Bob Pritchard. In honor of Audra Fogle: Doug Quinn. In memory of Carl Reinking: Nan Reinking. In honor of Audra Fogle: Jim & Pam Ritchey. In memory of Michael Baron Chambers: Eric Scholl. In honor of Tom Gilbert's service and 25 years of Wild Brew: Kari Shults. In honor of Dan Reinking, In memory of Carl Reinking: Brian & Pamela Ufen. In memory of my uncle, Haydon Waehler, on his birthday: Christa Waehler.