oklahoma: 25 years strong

FALL 2011

The Nature Conservancy

Protecting nature. Preserving life.™

oklahoma chapter

Oklahoma Chapter Staff

Oklahoma Chapter Office

2727 E. 21st St., Suite 102 · Tulsa, OK 74114
Phone: (918) 585-1117 · Fax: (918) 585-2383

Mike Fuhr	*State Director*
Eileen Jobin	*Director of Operations*
Jay Pruett	*Director of Conservation*
Nancy Hatfield	*Associate Director of Philanthropy*
Traci Rostamo	*Finance Manager*

Oklahoma City Office

1001 NW 63rd St., Suite 260 · Oklahoma City, OK 73116
Phone: (405) 858-8557 · Fax: (405) 858-0265

Steve McGuffin	*Director of Philanthropy*
John Cougher	*Associate Director of Philanthropy*
Melissa Nagel Shackford	*Land Protection Specialist*

Tallgrass Prairie Preserve

P.O. Box 458 · Pawhuska, OK 74056
Phone: (918) 287-4803 · Fax: (918) 287-1296

Bob Hamilton	*Preserve Director*
Harvey Payne	*Community Relations Coordinator*
Tony Brown	*Assistant Director of Science & Stewardship*
Kay Krebbs	*Administrative Assistant*
Dwight Christian	*Ranch Manager*
Joe Bob Briggs	*Ranch Hand*
Perry Collins	*Ranch Hand*
Kevin Chouteau	*Ranch Hand*
Ann Whitehorn	*Gift Shop Manager*
Tawnda Hopper	*Housekeeper*
Carmon Briggs	*Housekeeper*

Pontotoc Ridge Preserve

31700 CR 3593 · Stonewall, OK 74871
Phone: (580) 777-2224

Jona Tucker	*Preserve Director*
Franklin Leroy Alm	*Land Steward*

J.T. Nickel Family Nature & Wildlife Preserve

1 Plaza South, Box 325 · Tahlequah, OK 74464
Phone: (918) 456-7601

Jeremy Tubbs	*Preserve Director*
Jeremiah Holland	*Preserve Steward*

Four Canyon Preserve

19613 East County Road 68 · Arnett, OK 73832
Phone: (580) 939-2220

Chris Hise	*Preserve Director*

Conserving Oklahoma, Acre by Acre

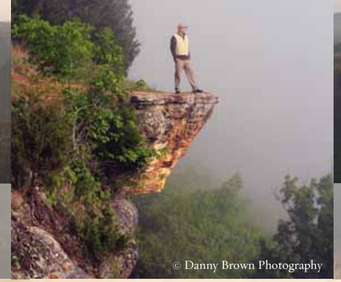
1 State

8 ecoregions

77,000 Acres

11 Preserves

1) Charley Owl Preserve
2) Boehler Seeps & Sandhill Preserve
3) Twin Cave Preserve
4) Cucumber Creek Preserve
5) Tallgrass Prairie Preserve
6) Black Mesa Nature Preserve
7) Pontotoc Ridge Preserve
8) Eucha Nature Preserve
9) J.T. Nickel Family Nature & Wildlife Preserve
10) Keystone Ancient Forest Preserve
11) Four Canyon Preserve


© Danny Brown Photography

"Today, the Conservancy's projects around the state not only conserve the acres within our ownership, but also spread conservation best practices beyond our preserve borders".

A Message From The State Director

Dear Friends:

It's hard to believe that it has been a quarter century since The Nature Conservancy opened its doors here in the great state of Oklahoma – a land packed full of unique landscapes from horizon to horizon, and packed, too, with the opportunities that go along with these special places. The wilds of Oklahoma are such a part of Oklahoma's history that it's often hard to separate its lands and waters from its culture and history. Try to recall one piece of our history that is not intertwined in some way with our unique landscapes.

The timeline in this report highlights many of the chapter's achievements during this first twenty-five years of service to the citizens of Oklahoma. Without your passion, vision and support of our work, the over 77,000 acres we have together conserved and protected for the generations that will follow would be nothing more than a dream.

Today, the Conservancy's projects around the state not only conserve the acres within our ownership, but also spread conservation best practices beyond our preserve borders. They also inspire new projects for us around the state while opening the door at a scale we couldn't even fathom when we began twenty-five years ago. So as we continue to work to conserve key parts of Oklahoma for nature's sake, for the many things it provides to each of our well being – our air, our water, our sanity – and for its link to our special history, I look forward to a continued partnership with all of you. We simply cannot do it without you.

Thank you so much for your continued support. You are truly making a difference.

Sincerely,

Michael Fuhr
State Director

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"Many plants have evolved to require bees, and often certain kinds or sizes of bees, for pollination".

Native Bee Monitoring on OK's Four Canyon Preserve

Bees are essential organisms in most terrestrial natural communities because of the pollination services they provide to plants. While many other insect groups visit flowers and some of these (like butterflies and hover flies) are pollinators, bees rank as premier pollinators because of their dependence on pollen as food for their offspring and their nesting behavior. These characteristics require female bees to forage for pollen from a central point (the nest) and repeatedly visit the same flowers over time. Since most plants require multiple visits to their flowers to maximize seed set and fruit production, bees are the perfect fit. In addition, many plants have evolved to require bees, and often certain kinds or sizes of bees, for pollination. Wild blue indigo, *Baptisia australis*, is a good example – the flowers can only be pollinated by large bees, like bumblebees.

Concerns about the health and decline of our pollinators, especially bees, have increased over the past decade or so. The National Academy of Sciences released a lengthy report in 2007 titled "The Status of Pollinators in North America," which pointed out that the lack of baseline information and absence of monitoring programs for most native pollinators made it difficult to determine if declines were actually occurring. More recently, work by a team of melittologists (scientists who study bees) at the University of Illinois has documented severe declines in several Midwestern bumblebee species.

In order to understand pollinator diversity and status on its preserves in Oklahoma, a bee inventory and monitoring program began in 2008 at the Four Canyon Preserve, in cooperation with several bee experts from Missouri and Illinois. Sampling at Four Canyon has turned up over 80 species of native bees; including many oligolectic species (oligolectic bee species collect pollen only from certain kinds of plants). Oligolectic bees are specialists, and because of this are more tenuously connected to natural systems than generalists, which can collect pollen from a variety of plants. Most of the oligoleges that were expected at Four Canyon to this point (based on the presence of their host plants), have been found. Interesting oligoleges found at Four Canyon include a nocturnal species (*Lasioglossum texanum*) that collects pollen only from flowers in the evening primrose family (Onagraceae), another species (*Centris lanosa*) that collects floral oil instead of nectar, and is restricted to communities where its oil plant (*Krameria*) occurs, several species restricted to pollen of Indian Blanket (*Gaillardia pulchellus*), and two bumblebee species (*Bombus fraternus* and *B. pensylvanicus*) that are declining in the Midwest. Two species new to science were also found: a species of *Anthidium* (large, black and yellow megachilid bees often oligolectic on legume plants), and a species of *Hesperapis* (family Melittidae), oligolectic on *Gaillardia* (Asteraceae). Both of these new species appear to be endemic to the southern Great Plains. All in all, the Four Canyon's bee fauna appears to be fascinatingly diverse, and in great shape.

FOUR CANYON PRESERVE

Contributed by Mike Arduser

"This spring we launched into a whole new endeavor – the restoration of prairie streams".

Prairie Stream Restoration

TNC's conservation activities at the Tallgrass Prairie Preserve have primarily focused on land management. However, this spring we launched into a whole new endeavor – the restoration of prairie streams. Streams are an important part of the conservation picture at the Tallgrass, with the preserve designed around the protection of the headwaters of Sand Creek. Sand Creek, and its tributaries, are recognized as a high-quality example of the prairie stream ecosystem due to the high levels of aquatic biodiversity they harbor.

Dry Creek is a tributary of Sand Creek located in the northwest part of the preserve. In their most pristine state, streams such as Dry Creek have small rectangular channels and overhanging banks held together by the thick root mats of dense riparian sedges and grasses. These streams should be winding and stable with low bank heights allowing them to flood out of their banks very frequently. This channel structure maximizes the stream's capacity to transport the water and sediment produced by the watershed and to safely manage flood events without disruption of the channel or downstream habitats. Fine silt and clays should not accumulate in the stream channel, but build rich topsoil on the floodplain surfaces promoting high grassland productivity.

Dry Creek is currently eroding, resulting in a stream with an overly deep, overly wide channel and actively eroding head cuts. These problems were likely the result of historical land management activities in the area, especially the impacts from culverts and bridges on the county road. The objective of the project is to return Dry Creek to a stable stream geometry through the use of a natural channel design approach, which emphasizes a stream's natural hydrological and geological tendencies. This natural engineering approach is a revolutionary discipline that is drastically different than the conventional methods of using concrete and rip-rap to force a stream to "behave".

From March 16-20, 2010, Bidelspach Environmental LLC conducted the restoration construction phase of the project. Their work was halted by the blizzard of March 20th, which produced eight inches of snow. Construction was then completed between April 8th through 10th and went very smoothly with good soil moisture working conditions. Two track-hoes and one skid-steer loader were used on the project. Construction objectives were to restore stream stability and functionality by re-shaping eroding banks, headcuts, and the stream channel. On-site native stone and native prairie round bales and square bales were imbedded in the stream channel to provide periodic grade control structures, and cuttings of cottonwood and willow were planted along the stream channel to improve channel stability. Topsoil from within the channel was re-distributed to provide a suitable base for permanent vegetation, and all disturbed areas were stabilized with native prairie hay. All hay used on the project was native tallgrass prairie hay that was harvested from the Tallgrass Prairie Preserve (8 large round bales and 180 small square bales). All construction impact was confined to the stream channel area, with no impacts to adjacent native prairie (no "borrowing" or disposal/piling of soil). The project will be intensively monitored for two years, but all indications so far are that we have an excellent demonstration of natural prairie stream restoration that should be of interest to our rancher neighbors and throughout the Greater Flint Hills.

Photos above: *From left to right, Dry Creek headcut, before and after restoration construction; Dry Creek stream channel, before and after restoration construction.*

TALLGRASS PRAIRIE PRESERVE

"Environmental flows should not be viewed as an "allocation" of water, but rather a desirable outcome of integrated management of water and land resources for long term sustainability."

— Brian Richter, in *Rethinking Environmental Flows: From Allocations And Reserves to Sustainability*, River Research and Applications, 2009

Environmental Flows: The Key to Our Future...and Our Rivers' Future

Anyone who has repeatedly visited a river to fish or swim, or simply to absorb the serenity that can often flow from that favorite stretch of cool, clear stream knows that each and every river has its own unique personality. Some seem to flood all the time, others only during certain times of year. Some floods have a very short duration, while others always seem to last for days or weeks.

These differences among our favorite rivers are like a fingerprint – every river has a unique flow pattern which has developed over the millennia and is based on factors such as local geology, the vegetation and topography within its watershed, and of course local rainfall patterns. These fingerprints can be described with what is called a hydrograph which is based on many years worth of daily flow data collected most often by the U.S. Geological Survey. More importantly, these fingerprints can be altered due to changes in their watershed, such as clearing of forests, addition of paved surfaces, or large withdrawals of water to name a few.

These river-specific flow patterns and efforts to conserve them are often referred to as "environmental flows" or "instream flows." The term minimum flows has been used in the past, but implies that rivers only need to have a small amount of water flow in them to be healthy. In addition, laws that take the minimum flow approach (e.g. a river cannot go below a certain level to stay in compliance) completely miss the importance of the high flows, the duration of high and low flow events, and the timing of these events. In other words, they greatly oversimplify these wonderfully complex systems.

And as you might imagine, local flora and fauna have adapted to, and even depend on these unique patterns of high and low flows to survive and reproduce. An example of this dependence on environmental flows is that of the smallmouth bass. This popular sportfish, found throughout the Ozarks, spawns in Oklahoma in late April and into May. It is no coincidence that during this time our Ozark rivers typically experience low spring flows; during spawning and subsequent guarding of the nest by the male bass, low flows are crucial to ensure that the eggs and/or young are not washed out of the nest and away from parental care. Successful spawning is directly dependent on this low flow period. At the same time, seed dispersal of many riparian forest trees often coincides with the high flows of early and late spring. Their success is dependent on the spreading of seeds downstream, as is the health of the streamside forest through the germination of young trees that will someday grow large enough to replace those lost to disease, lightning, or washing into the river where they provide critical habitat for adult smallmouth bass (among other species).

These high and low flows play other important roles, as well. High flows are critical to maintaining the physical form and function of the riverbed; they wash sediment downstream and deposit it in the floodplain where the nutrients benefit the forest, pasture, or cropland found there. These bottomlands have rich soils, the ones we often depend on for crops, because of these high flows, not despite them. High flows are also important to people because they dilute the nutrients from fertilizers that wash into streams from crops and lawns, as well as from our waste treatment plants. Without them, many municipalities could not meet clean water standards.

And so many communities depend on a local river and its flowing waters for their drinking water and for tourism – the Illinois River and Tahlequah are a good example. More than 400,000 people visit the Illinois River each year contributing millions of dollars into the local economy.

As a result of this long list of reasons why environmental flows are important, they are often defined as: *The amount and timing of water flows required to maintain the species, functions, and resilience of freshwater ecosystems and the livelihoods of human communities that depend on those healthy ecosystems.* The important part of this definition is the last part which highlights the link environmental flows have to the people that depend on them. The two are inseparable.

Yet despite these benefits to us all (and the many not even described here), the importance of these river fingerprints is often overlooked or even ignored when discussing the need to conserve them. An environmental flows program in Oklahoma would help to ensure that there is enough water in our streams for people AND nature by having a better accounting of our water and its relation to the life found in our rivers: how much we have, which varies from season to season, how much we need to meet the demands deemed important by society, and what are the most important parts of a river's fingerprint as it relates to aquatic and other species. It ties all of these questions together. A program with this goal does not attempt to place a higher priority on fish and wildlife than on the needs of people or agriculture. Instead, it aims to have a sustainable plan for our water management that takes into account many different interests, including the environment. More importantly, it is a way to provide the state's decision-makers with enough information to make informed decisions.

One of the biggest arguments against an environmental flows program is that we have not yet had a problem so therefore we do not need one. And while there has not been a problem that has risen to the attention of the media, the reality is that many of the fish and mussel species that have shown declines over the last several decades have done so because of subtle changes over time to the flows of important rivers resulting from things like dam construction and water diversions. The fact is, taking a proactive approach to environmental flows conservation is the smart approach – making informed decisions will increase the likelihood that water issues that pit people against a rare fish or mussel will be avoided all together. Waiting for a conflict to arise will only lead to lawsuits that pit one group against another. Many examples of failure already exist for a wait and see approach. One need only look to Texas' Edwards Aquifer where the federal courts had to step in and force a solution on the local communities. That is not an approach that any state would choose.

There are many different environmental flow methodologies that can be used to help determine the needs of aquatic communities as it relates to flow and aquatic habitat. Which one is ultimately chosen is not nearly as important as simply moving forward with a program to ensure our state's water future. Oklahoma instead has a huge opportunity to set its own destiny, its own future; one that shows future generations that we all cared enough to think beyond the short term.

They can cause blood to be squirted from the corner of their eyes

special species profile

Texas Horned Lizard

"Horny toad!" Many of us as kids can remember saying that aloud to our playmates when we saw this thorny-looking reptile scurrying across the ground. They used to be very common in Oklahoma, in both rural and urban settings. But no longer.

The Texas horned lizard (*Phrynosoma cornutum* – "horned toad body") is the largest of the 14 species of horned lizards in the U.S. and ranges throughout the Southwest part of the country. In Oklahoma, it has been found all over the state, except in the southeast corner.

Three quarters of the diet of the horned lizard is harvester ants, with the rest consisting of other insects. Females lay their eggs in the ground, from which the young crawl out after hatching. Horned lizards bury themselves in the dirt to hibernate through the winter.

Horny toads have several means of protecting themselves from predators, such as snakes and roadrunners. Their coloration provides a natural camouflage and their horns, which are part of their skull on their head, but are modified scales on the rest of their body, serve as deterrents to being swallowed. When threatened, they will first lie still, but if that fails, they will either run quickly into a clump of grass or swell up to look more difficult to swallow. As a last resort, they can cause blood (mixed with other chemicals) to be squirted from the corner of their eyes toward a threatening animal – the blood tastes foul to canines and felines.

The decline of the Texas horned lizard has generally been attributed to the over use of pesticides and the invasive of nonnative red imported fire ants, both of which reduce populations of harvester ants. The lizards are now protected from disturbance by law and are a target species of conservation efforts by The Nature Conservancy. Today, they have been seen at the Four Canyon, Tallgrass Prairie, Pontotoc and Black Mesa Preserves in Oklahoma.

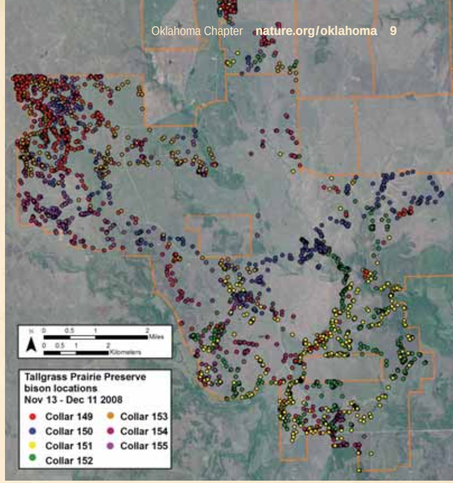
Tracking Bison

One reason that The Nature Conservancy has preserves is to use them to study basic ecological processes so as to gain clues as to what the best management practices might be to benefit native wildlife. This is positively the case with the Tallgrass Prairie Preserve in Osage County, where such research has been carried out for two decades now. At last count, there had been over 175 research papers of one type or another completed about this 40,000-acre landscape.

Much of the research has been undertaken by faculty and students at Oklahoma State University (OSU) in Stillwater. Recently, a desire had been expressed to determine the movements of the re-introduced bison on the preserve with regard to the current management of the grassland with prescribed fire. One way to do this would have been to assign a graduate student to follow some selected bison day and night for a week at a time. A much better way would be to attach Global Positioning System (GPS) collars to the selected bison and let those collars record a precise reading of where those animals are located on the preserve at specified time intervals. The data is stored in the collar and retrieved later and analyzed by researchers.

The results showed that the bison moved throughout the preserve's 24,000-acre bison unit, sometimes all the way around it in a day. The data also showed that bison are attracted to recently burned areas, where nutritious green grass sprouts emerge. This confirmed what was already thought from Native American lore regarding prairies being burned annually to attract bison for hunting.

Another purpose of a TNC preserve is to serve as a demonstration site for other landowners in the area, to show appropriate methods of land management that benefit wildlife along with the primary land use of the private land. Consequently, similar GPS collars were installed by OSU on cattle that grazed leased out portions of the preserve, to see if they would also "follow" recently burned patches in the preserve's cattle unit. This "patch-burn grazing," as it is called, benefits wildlife by providing a variety of food and cover, and can result in similar cattle weight gains to control areas as well. Preliminary results indicate that the burn history of an area can be a dominant factor in determining where cattle prefer to graze. This could be good news for both cattle ranchers and wildlife.



"The results showed that the bison moved throughout the preserve's 24,000-acre bison unit, sometimes all the way around it in a day."

Timeline of The Nature Conservancy of Oklahoma

1986
Arkansas River Least Tern Preserve Formed
&
Oklahoma Chapter Formed

1986
Charley Owl Preserve

1987
Boehler Seeps & Sandhill Preserve

Chapter's first annual meeting convened at Zink Ranch
&
Twin Cave Preserve
1988

1989
Cucumber Creek Preserve
&
Tallgrass Prairie Preserve
&
Add over 2,800 acres to the Little River National Wildlife Refuge in McCurtain County
&
Acquired Redbud Valley Preserve in Rogers County

Black Mesa Nature Preserve
1990

First Conservation Easement : White Oak Prairie
1991
&
Transfer ownership of Redbud Valley Preserve to the City of Tulsa
&
Tallgrass Bunkhouse refurbishing project completed

1993
Bison Release at Tallgrass Prairie Preserve. The initial bison herd of 300 animals was donated by Kenneth & Diana Adams

Tallgrass Prairie Preserve Gift Shop Opened
&

Pontotoc Ridge Preserve
1994

Conservation by Design
created as a framework to guide the efforts of The Nature Conservancy
1996

1995
"***Big Bluestem, Journey Into the Tall Grass***"
published. Illustrates the history of Osage County, Chapman-Barnard Ranch, and the efforts resulting in the Tallgrass Prairie Preserve

First Ecoregional Assessment (Central Shortgrass Prairie) completed
1998

1997
Eucha Nature Preserve

2000
J.T. Nickel Family Nature & Wildlife Preserve
&
Three Mile Nature Trail completed at Pontotoc Ridge Preserve

Tallgrass Bunkhouse listed on National Register of Historic Places
2001

J.T. Nickel Preserve Headquarters Completed
2003

2002
Keystone Ancient Forest Preserve

&
Wiggins Tract added to Pontotoc Ridge Preserve

Four Canyon Preserve
2004
&
Tallgrass Research Station Completed
&
Reintroduce Elk to the J.T. Nickel Preserve
&
ADA trail completed at Pontotoc Ridge Preserve

Martin Tract added to Four Canyon
&
TNC created Oklahoma Wind & Wildlife Map. Went live on the Oklahoma Wind Power Initiative's website
2006

Four Canyon Preserve Headquarters Opens
&

Tallgrass Prairie Bison herd reaches desired size at 2,700 animals
2008

Completion of J.T. Nickel Preserve Stewardship Barn
2010

2007
Black Bear return to Nickel Preserve
&

Payne Tract added to Nickel Preserve

2009
Final Ecoregional assessment for Crosstimbers & Southern Tallgrass Prairies completed
&
First Blue River Conservation Easement

Oklahoma Chapter 25th Anniversary
&
25th Anniversary Nature Festival Celebration
2011
&
TNC Innaugral Springtime on the Prairie Event
&
"***Tallgrass Growing — Birth & Success of the Great Oklahoma Prairie Preserve***"
published. Illustrates the history of the development of Tallgrass Prairie Preserve.

Chasing Dragons

It has become the custom of Franklin "Leroy" Alm to spend his spare time chasing dragons. Pontotoc Ridge Preserve, decked out for spring, looks her best. Wildflowers bloom in a cascade of colorful species from March through July. Those highly mobile wildflowers, butterflies and breeding birds, wing across the prairies. From where he sits high on the seat of a John Deere tractor, Alm sees them all, but looks for something slender, with subtle colors and less often appreciated. Observing damsels—only occasionally in distress—and chasing dragons are his specialty you see. Alm is Land Steward for Pontotoc Ridge Preserve. Originally hired by the Conservancy to cut eastern red cedar, Alm has now done everything from repair fire trucks to build sturdy, attractive footbridges for the preserve's hiking trail. These footbridges are made of boards hewn from the same cedar trees he cut to improve habitat. Raised on a dairy farm in Oregon, Alm worked in plywood mills in the Pacific Northwest and as an electrician in Alaska before moving to Oklahoma.

Wild and diverse, Pontotoc Ridge has always had a dedicated cadre of volunteers working to document the plants and animals living on the preserve. For years, enthusiasts have been making annual trips to count and identify butterflies and birds. Two volunteers have recorded more than 300 different moths in a half-dozen sleepless nights spent tending sheets illuminated by black lights.

Over the years, people birding or bugging documented 18 different species of Odonata (dragonflies and damselflies) on the preserve. This was a respectable number, but in 2010 Land Steward Alm got *serious* about the dragons of Pontotoc Ridge. He has hunted moose, caribou, elk, both black and grizzly bear, all three species of North American deer and wild pigs, so chasing dragons shouldn't have been as fun and challenging as it turned out to be. Instead of a rifle, Alm uses field guides and a sturdy net. How do you get excited about chasing bugs after hunting big game? Pretty easily, it turns out. Tiny, enigmatic species—like dragonflies and butterflies—can be as rewarding to find and identify as hunting large game animals. I work with Alm and watched his transformation from amused and mildly curious to dedicated dragon hunter and defender. One summer day, he was slipping up on a roseate skimmer when an eastern kingbird grabbed the dragonfly out of the air in front of him. I momentarily feared for the bird. I have seen angry nature lovers before, but nothing like his outrage over a hot-pink dragonfly eaten by a migratory bird! Why so much passion for these bugs? Odonata, like everything biological, are endlessly engaging.

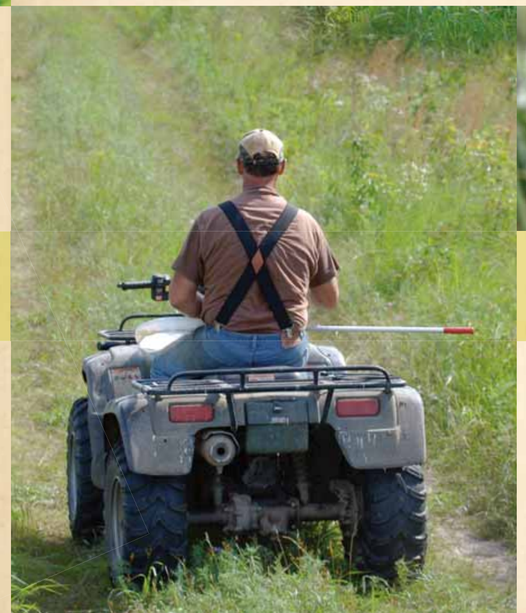
"Dragonflies are swift and agile fliers that blend in with their surroundings when not in flight. They are both predator and prey, making them fascinating to watch."

Dragonflies are swift and agile fliers that blend in with their surroundings when not in flight. They are both predator and prey, making them fascinating to watch. Dragons have great eyesight. Their enormous compound eyes are especially good at detecting movement, which can make photographing them difficult. Damselflies are not strong fliers. Instead, damsels are found on or hovering near vegetation. Finding and identifying them can be challenging as well as incredibly rewarding. To paraphrase something well said about mountains and prairies, anyone can love a butterfly, but it takes soul to love a damselfly. Worth the effort to observe, dragonflies and damselflies have a delicate beauty that belies their fierce nature.

Dragonflies and damselflies spend the first part of their life underwater, breathing dissolved oxygen through gills. Even in this aquatic form, they are voracious predators, eating mosquito and other larvae. When they emerge, shedding their aquatic diving suit and sprouting wings, they become masterful fliers able to move through the air with the same ease they moved through water. The metamorphosis of a leaf-munching caterpillar to butterfly is really less magical than the emergence of a flier from a swimmer. Transformed into fliers, dragonflies and damselflies are beautiful. It takes a little effort to notice the happy-looking bulldog faces of meadowhawks, the delicately tinted wings of a saddlebags or the vivid metallic shimmer on an American rubyspot, but worth it as Alm has learned.

After being a casual observer of Odonata, Alm decided Pontotoc Ridge needed its dragonfly and damselfly species documented and that he needed a new challenge. With his net tied down on the tractor or ATV, he watches for unrecorded species while working on the preserve. After work, he scours the preserves seeps, springs, creeks and ponds for new species. What started as maybe a bit of joke quickly resulted in 35 preserve records, 30 county records and a passion for conserving Odonata and the habitat they depend on. 2011 has been the driest year in Oklahoma's recorded history and surface water has been scarce at Pontotoc Ridge. Even in this dry year Alm has added another 3 species to the preserve list. In addition to being Land Steward for Pontotoc Ridge, Alm is a volunteer firefighter and first responder. In this historic year for wildfire, he has fought fire across southern Oklahoma as a member of a nearby rural fire department. Whether fighting fires or working at Pontotoc Ridge, he is thinking of wetter days, wetter years, and dragons and damsels in abundance.

Contributed by Jona Tucker



"Odonata, like everything biological, are endlessly engaging."

In the last ten years, several field guides have been published that make it possible for casual observers to identify dragonflies and damselflies. Equally important, digital cameras now make it possible to "hunt" and "capture" dragons without injuring or killing them. Close-focus binoculars — like those used for enjoying butterflies — make it easy to identify and observe Odonata.

There are websites devoted to dragonflies and damselflies including our favorite, odonatacentral.org, where you may upload photos tagged with the location, download species lists by county or see range maps for individual species.

LEGACY CLUB: Planning Your Future Now

The Legacy Club is a special group of supporters who have included The Nature Conservancy as part of their long-term planning. Whether making a specific bequest, designating a gift from an IRA or establishing an annuity or remainder trust, there is a vehicle to suit everyone's circumstances. And legacy giving isn't just for the wealthy, every gift makes a difference!

Making Your Gift Count. *Many of us tend to put off writing our estate plans. Once we finally get to it, we don't always let charitable groups know that we've left them a bequest. And while we may think this will be a nice surprise, it could mean that your gift doesn't get used in the way in which you intended. For example, donors to The Nature Conservancy may assume that their bequest would naturally go to their state chapter or to the programs they have supported during their lifetimes. But that won't necessarily happen unless you specifically name the state or program. Making sure your gift is used as you wish is as simple as completing the appropriate form. For more information about bequests and planned giving, please contact Steve McGuffin at 405-858-8557 or smcguffin@tnc.org.*

planning your future now

The Nature Conservancy's Oklahoma Chapter received a significant bequest from the estate of Eduard and Susan Douze. They chose to leave a legacy for generations to come in Oklahoma by giving a gift derived from the work of a lifetime. Their legacy gift will go toward purchasing land at the Four Canyon Preserve and our land stewardship efforts in preserving and restoring more of this great state.

Sharing A Life of Passion

Eduard and Susan were best remembered by a former employee, Holly Erwin, who had the good fortune of sharing time with them:

"Loved seeing them at Pontotoc Ridge. When they came to the preserve, they always made it a special occasion. They would bring a picnic lunch to share, with some of the best stuff and presented in the nicest way, i.e. real tablecloth and napkins! After lunch Guthrie and I would walk with them around the spring and under the cedars there."

"Ed and Susan were very easy and comfortable to be with. It was so apparent that they cared for each other so much and called each other affectionate names; 'Darling' and 'Dear' were heard a lot. They had a strong love of nature and sharing it with others."

Also, remembering Eduard and Susan and their involvement with The Nature Conservancy is former Director of Science and Stewardship, Nora Jones and her husband Jack who wrote:

"Eduard and Susan Douze were long-time supporters of The Nature Conservancy who shared their love of nature and opened their home, and their hearts, to many other members."

"I first met Susan when she came to TNC's office on Boston Avenue to interview me for the first of many front page stories about Oklahoma projects for *The Tulsa World*. My husband Jack, a petroleum engineer with a degree from the University of Tulsa, already knew Ed as the head of TU Geophysics Department. Very soon we discovered that we all loved cats, mushrooms, cooking and field trips to TNC preserves across the state."

"On one memorable trip to Boehler Seeps and Sandhills in early summer with the Oklahoma Native Plant Society, Ed calmly mentioned that there was a six foot rattlesnake next to our feet. Quickly the snake slid away under a fallen log and the group moved on without incident. Susan always laughed when she said I took her to the nicest places. This was generally as she was putting lotion on chigger bites or pulling a seed tick off her pants leg."

"Ed and Susan were always willing to go anywhere that would help TNC's cause. If a fence needed repair at Black Mesa, if materials for a gate on Twin Cave needed transport, or if I needed someone to accompany me to Lee's Creek Woodland, they were always ready and willing to go."

"They both loved to experience firsthand the land preserved by TNC all across Oklahoma. They traveled to exotic locations across the world but always came back home to Oklahoma, where the states incredible diverse ecosystems held endless fascination. They are greatly missed."

We thank Nora and Holly for sharing some of their memories. Eduard and Susan were great supporters and we at The Nature Conservancy are more than grateful for their generosity and commitment to conservation and our mission in Oklahoma.

The Tallgrass Prairie Preserve received a significant bequest from the estate of Dr. Margaret E. Meyer this past year.

A Life Well Lived, A Legacy To Remember

Dr. Margaret E. Meyer was a retired University of California at Davis veterinary professor who was widely recognized as an authority on brucellosis, an infectious disease in cattle, bison and other domestic livestock and wildlife. She had a deep interest in eradicating brucellosis as she believed it to be possible to do so and she wished to clarify that bison did not spread this disease to cattle. In 1992, in one of her more notable endeavors, she was a witness in a federal lawsuit in Wyoming, where she testified against cattle ranchers' claims that their herds were being infected with brucellosis by bison from Yellowstone National Park.

Although there is no record that Dr. Meyer ever visited the Tallgrass Prairie Preserve, it is believed she chose it as the recipient of a portion of her estate because she could have a big impact on the land and, for her, it symbolized *where the buffalo roam.*

The plans for Dr. Meyer's generous legacy include acquisition of inholdings within the Tallgrass Prairie Preserve and protecting a larger portion of the tallgrass prairie ecosystem through the acquisition of conservation easements. A memorable legacy for a life well lived.

Gift & Estate Planning: Ways To Give

There is an adage that says that the meaning of life is to plant trees under whose shade you do not expect to sit. We believe this sentiment embodies the wisdom and spirit of our planned giving donors. Today the vision and generosity of these donors provide us with the inspiration and the confidence in our work to ensure that we leave a sustainable world for future generations.

All of the gifts described in the chart below provide support to The Nature Conservancy. The chart briefly outlines gift types, gift requirements and the potential benefits to you. For detailed information about each gift type please contact: Steve McGuffin, 405-858-8557 or smcguffin@tnc.org.

"Their legacy gift will go toward purchasing land at the Four Canyon Preserve and our land stewardship efforts in preserving and restoring more of this great state."

	OUTRIGHT GIFTS					GIFTS THROUGH YOUR ESTATE			GIFTS THAT PRODUCE INCOME					OTHER GIFTS		
	Cash	Securities	Business Interests	Real Estate (1)	Personal Property (2)	Bequests	Retirement Assets (3)	Life Insurance (4)	Charitable Gift Annuity	Deferred Gift Annuity	Pooled Income Fund	Charitable Remainder Unitrust	Charitable Remainder Annuity Trust	Donor Advised Fund	Retained Life Estate	Charitable Lead Trust
BENEFITS TO YOU																
Income Tax Deduction	×	×	×	×	×				×	×	×	×	×	×	×	
Estate Tax Deduction						×	×	×	×	×	×	×	×	×	×	×
Capital Gains Tax Savings		×	×	×	×				×	×	×	×	×		×	
Get Fixed Income									×	×			×			
Get Income with Growth Potential											×	×				
Get Higher Payout on Low Dividends									×	×	×	×	×			
BENEFITS TO THE CONSERVANCY																
Immediate or Future Support	IMM	IMM	IMM	IMM	IMM	FUT	FUT	FUT	FUT	FUT	FUT	FUT	FUT	FUT	IMM	IMM
ABOUT YOUR GIFT																
Irrevocable or Revocable	IRR	IRR	IRR	IRR	IRR	REV	REV	REV	IRR	IRR	IRR	IRR	IRR	IRR	IRR	IRR
Age Minimum									50	30	50	50 (5)	50 (5)			
Legacy Club Member						×	×	×	×	×	×	×	×	×		
GIFT MINIMUM																
Cash									$5,000	$5,000	$5,000	$50,000	$50,000			$100,000
Appreciated Securities									$5,000	$5,000	$5,000	$50,000	$50,000			$100,000
Real Estate				0$100,000		$100,000			$100,000	$100,000		$100,000		$ 100,000		$100,000
Personal Property									$50,000	$50,000		$50,000				$100,000

Notes: (1) Examples include residence, vacation property, commercial, farm, land, etc.
(2) Examples include artwork, collectibles, equipment, etc.
(3) May also be possible to give outright.
(4) May also be given outright.
(5) Trusts for younger donors may be established for a term of 20 years or less.

Scissor-Tailed Flycatcher

There may not be a better choice for Oklahoma's state bird than that of the iconic scissor-tailed flycatcher (*Tyrannis forficatus*). For anyone who lives here, there may not be a more anticipated arrival of a bird each and every spring. Found throughout almost the entire state, the appearance of this spectacular bird each late March or early April is a welcome reminder that warmer temperatures and longer days will soon befall our state. This event is an Okie's version of Groundhog Day as the awaited explosion of green that comes with every spring will certainly follow.

Scissor-tailed flycatchers prefer open prairies and fields with scattered trees and shrubs. It is not uncommon to see one perched on a barbed wire fence along a rural road just about anywhere in Oklahoma; the unusually long tail of adult birds is a dead giveaway, along with the bright salmon pink under the wings which is visible during flight. These birds prefer a diet of grasshoppers and beetles, as well as other insects.

After a winter vacation in southern Mexico and Central America as far south as Costa Rica, the birds make the long journey here to breed. They prefer individual trees in which to build a nest of thin twigs, weed stems, rags, hair and cotton. Their preference for using isolated trees makes finding a scissortail nest easier than for other species. Four to five light-colored eggs, usually spotted with brown, are laid in the nest where they are incubated by the female for approximately two weeks. Both parents care for the hatchlings by bringing them food, mostly insects. After only about two weeks, the offspring leave the nest to fend for themselves.

Interestingly, scissor-tailed flycatchers seem to be somewhat immune to the nest parasite brown-headed cowbird. This parasite never builds a nest of its own, instead laying a single egg in the nests of other birds. The cowbird's offspring hatch with the other species' young and are even fed by their adopted mother. However, over time they outgrow their nest-mates, and ultimately push the other hatchlings out of the nest to their death, taking advantage of the increased amount of available food. And while this approach is successful with many bird species, a study showed that in nests where a cowbird laid an egg or had one placed there by researchers, the parasite's egg was removed by the scissor-tailed flycatcher.

The good news is that the scissor-tailed flycatcher's numbers remain strong throughout its range. It's ability to adapt to changes in habitat, such as conversion to non-native species suggest that it will be around a long time to signal to Oklahoman's that spring is just around the corner. Next time you see one may be just at that moment where you need a subtle reminder that this long winter will too soon end.

special species profile

Feral Hogs

The menace of invasive species is one of the most dire threats to the conservation of native species in Oklahoma. Along with the lack of prescribed fire, incompatible grazing and poorly sited infrastructure development, invasive species constitute the most severe and wide spread difficulties with which The Nature Conservancy must contend to do its work. And the fastest growing threat among invasive species may be feral hogs.

Originating from escaped domestic pig stock and from boar species released in parts of the country for hunting, feral swine today are found in the southern half of the country generally, with intrusions into northern regions as well. In Oklahoma, they can be found almost statewide and they have been seen on most TNC preserves. It has been said that there are two types of land – those having feral hogs and those that will have feral hogs.

What's so bad about pigs, you may ask. Well, they are tough, smart, adaptable, prolific and destructive – other than that, they are just free-ranging bacon. Wild pigs will eat anything they can find or catch, including eggs and young wildlife, and foods of other wildlife such as acorns, nuts, fruits and seeds. Their reproductive capacity starts at a young age, and results in multiple litters per year of as many as 15 piglets each. They quickly adapt to attempts to hunt or trap them and will range widely to find food and water. They are a scourge on private property as well as conservation lands, continuing to proliferate and spread.

The Conservancy attempts to control these non-native invaders with trapping and hunting on its preserves. One recent evening of trapping resulted in 75 removals at one preserve alone. However, as with many other invasive species, control on one property is only temporary if surrounding properties don't also try to eliminate their populations.

The battle against feral hogs will have to continue from now on. They will not be completely eradicated, but only controlled to some degree. Failure to take control measures will result in significant losses of wildlife and their habitat, a loss we are not willing to accept. New control measures are being developed, such as species specific poisons and "birth control," but these are not yet available for use. In the meantime, private and public landowners must do what they can to manage their populations of feral hogs.

invasive species profile

conservation visionaries

Conservation Visionaries July 1, 2010 – June 30, 2011

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Conservation Visionaries July 1, 2010 – June 30, 2011

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