

## Visiting Researcher from Spain

By Silvia Diaz Fernandez

My search for someone with experience in studying game bird harvest, the main topic of my PhD, led me from Ciudad Real (Spain) to Oklahoma last summer to work with Dr. Fred Guthery.

My principal objective was to learn different approaches to harvest management research. I quickly remembered what hard work it is to be a beginning scientist: To realize that you know so few things, that you should read so many manuscripts, that one and a half months is really a very short time. Has any graduate student ever felt the same?

More than my main objective was achieved. While in Oklahoma, I had the opportunity to visit some natural areas around Ardmore, including Lake Murray State Park in the south. I also visited the Tallgrass Prairie Preserve in the north and two private ranches in the northwest.

All these trips, plus the people I met, helped me learn about the context of environmental research and management in this State.

I also was able to discuss ideas about philosophy of science. I value this part of

*Continued on page 2*

# Natural Resource News

Volume 2, Issue 4, Fall 2008

A quarterly publication of the Department of Natural Resource Ecology and Management at Oklahoma State University



## Dave Engle Joins NREM and DASNR

Dave Engle has returned to OSU after serving for three years as head of the Department of Natural Resource Ecology and Management at Iowa State University. An OSU faculty member for 23 years before his departure in August 2005, he rejoined the Division of Agriculture and Natural Resources on August 1, 2008, when he became Director of the new Water Research and Extension Center within DASNR.

Dr. Bob Whitson, Vice-President, Dean and Director of DASNR commissioned the Center to “foster, facilitate and conduct research (Oklahoma Agricultural Experiment Station) and extension (Oklahoma Cooperative Extension Service) programs to sustain and enhance water resources for agriculture’s beneficial use in Oklahoma, the nation and the world.

The Center will serve as the focal point to address the many water issues vital for agriculture’s sustainability in the State and has been identified as one of our high priority emphasis areas in the Division’s planning.”



*Dr Dave Engle*

Dave also joins the faculty in NREM. While at Iowa State, Dave maintained collaborative research efforts with OSU faculty, which he plans to continue.

Among other research and extension activities, he actively participates in the patch-burn grazing research team and the research and extension team focusing on ecology and management of eastern redcedar.

Continued from page 1

my visit because, unfortunately, this topic is usually far from my daily work.

I delivered a seminar titled “Land Management and Red-legged Partridge: Working Towards Sustainable Harvest” during my visit to OSU. I hope it was as interesting to the audience as their questions were to me.

While my time was brief, it was enough for me to know that I will look for another opportunity to go back to NREM to work, learn and enjoy again. It was a great experience.



Silvia working hard near Lake Murray State Park

## 2008 Oklahoma Wildlife Expo

*By John Weir*

The 2008 ODWC Wildlife Expo held September 26th-28<sup>th</sup> at the Lazy E arena in Guthrie was a huge success. There were approximately 38,600 visitors, 51% of which had never attended an Expo. Additionally, there were 80 schools and 5,000 students from around Oklahoma present on Friday. This event continues

to be a popular annual activity, and allows NREM to interact with a diverse group of stakeholders. Faculty and students from NREM distributed over 30,000 promotional and educational items about our department and natural resources in Oklahoma. The NREM faculty would specifically like to thank the Wildlife, Range,

and Forestry clubs for their assistance. We are already planning and looking forward to next year’s Expo.

*John Weir is a Research Associate in NREM at Oklahoma State University*

## Contents

Visit from Spain .....	1
Dave Engle Returns .....	1
2008 Oklahoma Wildlife Expo .....	2
Economic Impact of Birding .....	3
Oklahoma’s Forest Biomass .....	4
Field Guide Revised .....	5
Student News .....	6
Kudos .....	6

## Natural Resource News

EDITORS: Dwayne Elmore and Kevin Allen

*E-mail:* [dwayne.elmore@okstate.edu](mailto:dwayne.elmore@okstate.edu) and [kevin.allen@okstate.edu](mailto:kevin.allen@okstate.edu)

*Website:* [nrem.okstate.edu](http://nrem.okstate.edu)

*Phone:* (405) 744-5438

Oklahoma  
State  
University



# The Economic Impact of Birding in the U.S.

By Dr. Tim O'Connell

I'm a birdwatcher. There, I said it.

On my own time, and my own dime, I wake up before dawn on a steamy summer Saturday to go crashing through cedar glades to find a nest of the elusive Bell's Vireo. I will, on purpose, travel to the local landfill on a frigid winter day and examine every single "seagull" through my spotting scope – after all, there could be an Iceland Gull somewhere among those hundreds of Ring-billed! I have driven, flown, and climbed countless miles over the last 30 years or so, all in the pursuit of opportunities to observe birds. And I am not alone.

Estimates from the most recent National Survey of Fishing, Hunting, and Wildlife-Associated Recreation indicate that nearly 48 million Americans participated in bird watching activities in 2006. In

the same survey, 12.5 million Americans participated in hunting and 30.0 million in fishing. The combined annual expenditure of birders and other nonconsumptive wildlife watchers was \$45.7 billion, up from \$37.7 billion in the last survey (2001). As an industry, bird watching is big business, and it's growing. What does one need to tap into this market? Birds and bird habitat.

We have many species of birds in Oklahoma. In fact, we have some spectacular birds like Scissor-tailed Flycatchers, Painted Buntings, Smith's Longspurs, and Lesser-Prairie Chickens – all species with ranges restricted to the Southern Plains, which means they draw birders to our state from across the country and across the globe. In 2006, 765,000 of those birders spent (along with other nonconsumptive wildlife watchers) \$329 million in Oklahoma.

What does this mean for Oklahoma landowners? It means that land has value not just for the oil and gas beneath it, the food and fiber that can be grown upon it, or the winds that blow over it. There are material benefits to be reaped by landowners, local communities, and ultimately all of our citizens when we manage those lands well to provide the needs of native wildlife, especially our native birds.

There are many resources available to learn more about birding hotspots in our state and how best to manage land for the benefit of native birds (listed below). Several Oklahoma birding festivals will be held in 2009, and a great way to learn about the things that birders value in the field would be to take part in a festival in your area. But be careful if you do: once you start birding, it can be rather difficult to stop!

*Dr. O'Connell is an Assistant Professor of Wildlife at Oklahoma State University*



*Local birders enjoying the outdoors on a brisk spring day.*

Oklahoma Ornithological Society:  
<http://www.okbirds.org/>  
American Birding Association:  
<http://www.americanbirding.org/>

Cornell Lab of Ornithology:  
<http://www.birds.cornell.edu/>

George M. Sutton Avian Research Center: <http://www.suttoncenter.org/>

## Oklahoma's Forest Biomass

By Dr. Craig McKinley

As the costs of petroleum, coal and natural gas continue to rise, more and more focus is being directed toward renewable sources of energy. A large part of this interest is currently toward energy that can be produced from woody biomass.

Woody biomass is defined as by-products of forest management, restoration, and fuel reduction treatments, and includes both trees and woody plants. This biomass is made available by thinning, removal of diseased or insect attacked trees, and natural disasters (e.g., hurricanes), along with urban clean-up activities, power line clearing and other forms of tree removal. Commercial wood products such as lumber, plywood, etc. are not included in this general definition of biomass.

In a 2005 USDA/Department of Energy report, the total forestland in the United States was listed as 749 million acres. From this land base, it was estimated that about 142 million dry tons of woody biomass is removed annually. That same report indicated that up to 367 million tons of woody biomass per year could be available on a sustainable basis with appropriate utilization and management. Obviously the potential exists for a significant increase in the utilization of woody material for U.S. energy needs.

What about Oklahoma's forest resource? Data from the most recent U.S. Forest Service survey (1993) suggests that in the 18 eastern counties of Oklahoma there are approximately 73.2 million tons of softwoods (mostly

pine and eastern redcedar) and 203 million tons of hardwoods (mostly hickories). As we move west across the state, additional volumes of oaks, ash, pecan, and other species can be added to this total. Likewise, a rather large volume of eastern redcedar exists on the more western lands, along with numerous hardwoods along creeks and rivers.

While ownership patterns vary across the state, it is generally reported that almost 75 percent of the forestland in Oklahoma is in non-industrial private ownership. About 17 percent is owned by forest industry and 9 percent in state or federal ownership. Thus, it is these non-industrial owners that likely have the most to gain

from increased biomass utilization. As the U.S. moves toward additional use of renewable energy sources, non-traditional wood products are likely to command increased value in the market place. In the future, the forestlands of Oklahoma could well be managed for woody biomass and other energy-related products in addition to the materials currently being produced.

*Dr. McKinley is a professor and State Extension Forestry Specialist at Oklahoma State University*



*Wood processed to a flour consistency for use in other manufactured materials*

# Popular Field Guide Revised

By Dr. Terry Bidwell

## Field Guide to Oklahoma Plants

Commonly Encountered Prairie, Shrubland, and Forest Species

Second Edition

Authors: R.J. Tysl  
T.G. Bidwell  
R.M. Masters  
R.D. Elmore

This book comprises synopses of 271 species. Each synopsis includes information about the taxon's (1) morphology, (2) taxonomy and nomenclature, (3) geographic distribution, (4) ecology, and (5) economic and/or wildlife significance. A full-page illustration by noted botanical artist Bellamy Parks Jansen accompanies each synopsis. Also included are two chapters that give an overview of the vegetation of Oklahoma and contributing ecogeographical factors. An illustrated glossary of the common botanical and ecological terms used to describe the taxa and vegetation, and a comprehensive index is included.

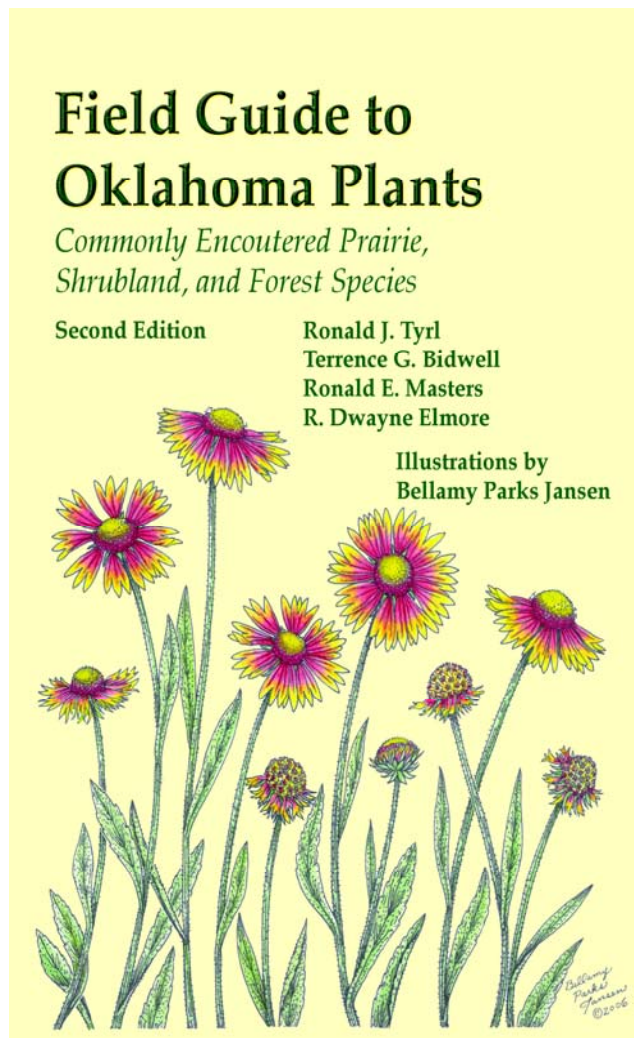
As the title of the book implies, the objective of the authors was to write a guide that facilitates the identification of commonly encountered, ecologically distinctive, or biologically/economically important plants. They envision the book's users to be anyone interested in the plants of Oklahoma. In addition, this book serves as the official guide for the National Rangeland Judging Contest: Judging Rangeland for Livestock and Wildlife Values.

If you would like a copy of this publication, please make your check for \$35\* payable to:

**Department of Natural Resource Ecology and Management, OSU.**

\*If mailed, the charge is \$40.

Dr. Terry Bidwell  
Professor and Extension Rangeland Specialist  
Department of Natural Resource Ecology and Management  
008C AGH, Oklahoma State University  
Stillwater, OK 74078  
405.744.6421  
bidwell@okstate.edu



## Kudos

Several NREM faculty and students attended and participated in the 93rd Annual Ecological Society of America meeting held in Milwaukee, WI. Current research activities described in presentations given by OSU participants included:

Testing models to generate a unified hypothesis of mycorrhizal function. Nancy C. Johnson, Gail W.T. Wilson (OSU-NREM), R. Michael Miller, Catherine A. Gehring, Matthew A. Bowker. Invited oral presentation, presented by N.C. Johnson.

Topsin-M: The new benomyl for mycorrhizal-suppression experiments. Melinda M. Williamson, and Gail W.T. Wilson. Poster presentation.

Alterations in soil function and biota by an invasive, non-native C<sub>4</sub> grass. Gail W.T. Wilson, Karen R. Hickman, and Melinda M. Williamson. Poster presentation.

Brady Allred and Sam Fuhlendorf. Pyric-herbivory: Changing selectivity. Oral Presentation.

Others attending the meeting were graduate students Scott Robertson and Wes Sprinkle.

## Club News

OSU Range Club members Jonathan Kelly, Cambra Soukup, Kyle Cothren, Derek Kelso, Amber Bolinger, Diane Kline, and Paula Smithheisler assisted NREM faculty at the 2008 ODWC Wildlife Expo held September 26-28 at the Lazy E Arena in Guthrie. Range Club members provided educational information concerning the effects of prescribed fire on livestock grazing, wildlife habitat, and promoting heterogeneity to school children and adults attending the Expo.

Hunters interested in competing in the Fourth Annual Big Buck Contest sponsored by the OSU Range Club are encouraged to contact Jonathan Kelly at (580) 471-2439, or [jonathan.kelly@okstate.edu](mailto:jonathan.kelly@okstate.edu) prior to initiating their deer hunting activities this fall. Winners of this year's contest will have the opportunity to win numerous prizes, to include some game calls, wildlife food plot mix, and a guided hunt.



## Giving to NREM

Support training and research in natural resource conservation and management. Send a tax-deductible contribution made payable to:

“OSUF – NREM Programs”  
Oklahoma State University  
Natural Resource Ecology & Management  
008 C Ag Hall,  
Stillwater, OK 74078.

Visit our website:  
<http://www.nrem.okstate.edu>  
for more details on gift ideas.

**SUBSCRIBING:** If you are not already subscribed to NREM news you can do so by sending an email to the address: [LISTSERV@LISTSERV.OKSTATE.EDU](mailto:LISTSERV@LISTSERV.OKSTATE.EDU) with the following command in the body of the email:  
SUBSCRIBE NREMNEWS-L