



The NREM Newsletter

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Departmental Update

By - Karen Hickman

The last quarter of 2015 was full of activity for the department: we conducted searches for a new department head and faculty positions; we had fall graduation; and our undergraduate and graduate students were extremely active. Dr. Dave Engle served as the interim department head throughout the fall, following Dr. Ed Miller's retirement. On behalf of the faculty and staff, I want to express our appreciation to Drs. Miller and Engle for serving the Natural Resource Ecology and Management department as interims. Both brought extensive experience and knowledge to the position and helped NREM develop and conduct searches for two faculty positions while squeezing in time to actively search for a new department head. Dr. Engle has returned to his research program and I have begun serving as the 3rd interim department head. My tenure will be short, as Dr. Jim Ansley will join NREM as department head in mid-March.

Dr. Ansley comes to OSU from the Texas A&M Agrilife Research Station located in Vernon, TX, where he served as professor and regents fellow in the Rangeland Shrub Ecology Research Program. He was stationed at the Vernon station for over 20 years. Soon after Dr. Ansley arrives, Dr. Omkar Joshi, our new natural resource management faculty member, will join us from the Texas Forest Service. We are looking forward to their joining NREM!

NREM had one of its largest PhD graduating classes this fall with five PhD students completing their requirements and graduating. NREM also graduated four M.S. students and 18 B.S. students. NREM also has an ever-growing number of post-doctoral fellows supporting the research programs of several faculty, with nine currently in the department. As NREM continues to grow and establish its reputation, we look forward to the contributions these newly-minted researchers will bring to the department.

The undergraduate and graduate students keep increasing their activity and visibility in the college and throughout

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OSU. Our graduate students are preparing for OSU Research Week and the 3MT competition. This competition requires students to develop and present a three-minute storyline for their research. At least seven of NREM's graduate students are preparing for the competition. The NREM graduate student organization is selling NREM t-shirts for \$20 to support various activities, including sponsorship of an outside speaker to come to OSU and present. If you would like to purchase one, please contact Kate Golden, NREM GSO President, at katherine.golden@okstate.edu.

Our student professional organizations had a great showing during OSU Homecoming. The Fisheries Society won 1st place for the CASNR window display competition and the Society of American Foresters Student Chapter placed 3rd. This marks the first time NREM has been recognized in this contest. The student clubs are also assisting faculty with the increased number of recruitment events hosted by OSU and the College of Agricultural Sciences and Natural Resources. As the number of NREM faculty tightens under the current budget scenario, we have asked the students to help the faculty at these events. It is refreshing to see students give of their time, talent, knowledge and energy to help NREM attract quality students.

Given all of the on-going activity in NREM—I think we have enough data to recognize that NREM faculty, staff, students, and alumni are doing great things in the field of natural resources.

Micro-Catchment Research

By - Chris Zou



EPSCoR staff assist OSU Kiamichi Forestry Research Station with the construction of a micro-catchment.

Runoff and groundwater recharge, are important components to address climate variability and adaptation issues. Experimental approaches of directly quantifying runoff under different vegetation types using micro-catchment studies help to understand vegetation-induced changes in hydrological mechanisms. Additionally, soil moisture and streamflow data are critical for calibrating hydrological models for regional applications.

There are several existing micro-catchments built for grassland and loblolly pine plantation at various locations in Oklahoma under various research projects and funding sources. National Science Foundation Experimental Program to Stimulate Competitive Research (NSF EPSCoR) funding allows us to expand this work by constructing three new micro-catchments in the oak forests at OSU Range Research Station and upgrading aging instruments for existing micro-catchments in both grassland and loblolly pine forest.

Data from these micro-catchments will be used by NSF EPSCoR researchers including Dr. Chris Zou, Dr. Lei Qiao, and Dr. Phillip Alderman to calibrate hydrological models which can be used to understand climate and land use impacts on water quality and quantity.

John Weir Receives Henry A. Wright Lifetime Achievement Award

By - Sean Hubbard



Henry A. Wright was a pioneer and leader in the world of fire ecology. The late professor from Texas Tech University did more than study fire and write textbooks and journal articles. He made a profound impact on his students.

John Weir recently received an honor in the name of his mentor. The Henry A. Wright Lifetime Achievement Award is presented to individuals who have inspired and mentored a generation of fire ecologists. Given by the Association for Fire Ecology, the international award means a lot more to Weir because of the man it is named after.

“I was truly blessed to have him as a professor while getting my master’s degree at Texas Tech,” Weir said. “He taught me a lot and every time I got to burn with him it was quite the experience.”

Weir has taken the knowledge provided by Wright and is blazing a trail of his own. With more than 1,020 prescribed burns under his belt, Weir has taken on a mission of debunking some of the myths associated with fire.

Weir has been relaying that message to students at OSU since 1990 when he was the OSU Research Range superintendent. Since taking a faculty position in 2006, his impact has been profound.

“John’s leadership is a major contributor to NREM’s national prominence as a wildland fire program,” said Dave Engle, NREM interim department head and Regents professor. “Our former students, all of whom learned the science and application of prescribed burning from John, are now fire ecology leaders at other land-grant universities and federal and state agencies across the nation. We are very proud of their stature and their reflection on OSU.”

Former students conducted or assisted with a total of 6,247 prescribed fires on 768,903 hectares from 1999-2014. A recent survey of these former students found that Weir’s approach to experiential teaching—emphasizing interaction between learner and instructor, such as conducting prescribed burns and spot fire and equipment training—is considered of much greater value than lectures and other passive types of instruction.

OSU Forestry Alumnus Receives Texas' First-ever 'Forest Stewardship Forester of the Year' Award

National recognition was given to Texas A&M Forest Service District Forester Russell Lykins for his work in and service to Texas landowners in Cass and Marion counties.

Lykins was presented the National Forest Stewardship Forester of the Year award at the National Forest Stewardship Conference hosted by the USDA Forest Service in Vancouver, WA. Oct. 20. The award is the first-of-its-kind given nationally by the USDA Forest Service and the National Association of

State Foresters to the person or persons making a significant contribution of advancing the national Forest Stewardship and Rural Forestry Assistance programs.

Advancement comes in the form of numbers of landowners assisted, number of stewardship and reforestation plans written and the number of acres reforested. The stewardship program works to ensure the state's forests, trees and related natural resources are well-managed. That's important because healthy forests provide a sustainable flow of environmental and economic benefits.

With roughly 94 percent of the forestland in Texas privately owned, the management of our state's trees and forests, as well as the benefits they provide, rests in the hands of thousands of Texans. Who better than the state's tree experts to lead them? Local foresters, like Lykins, work with landowners to manage the state's trees, forests and natural resources in ways that both benefit all Texans and satisfy the landowner's objectives.

"I'm very appreciative of the award and it is a reflection on the hard work that not only I put in but the guys in the office who work just as hard if not harder to deliver the Forest Stewardship Program," Lykins said. "The greatest joy I have is working with my guys to serve the landowners in Cass and Marion counties."

Lykins received his B.S. from OSU in forestry in 1993 and an M.S. in forest resources in 1995.



From left to right: Matt Tansey USDA Forest Service, Russell Lykins, Doug Decker Oregon State Forester, and Jim Hubbard Deputy Director State and Private Forestry, USDA Forest Service.

Pond Dam Problem Prevention

By - Marley Beem

If you have ever seen the damage caused by an earthen dam blow-out, it leaves a strong impression. Dams are not only expensive structures to replace but the destruction wreaked by the sudden release of massive amounts of water is devastating. I would rather have my home hit by a tornado.

Regular walking inspections of all parts of a dam are recommended in order to catch problems early. Take some flagging or stakes along for marking problems. A camera will help in communicating the problem with knowledgeable engineers or technicians.

Here are some common warning signs for which you should be alert:

- Collapsed spots in the dam top
- Gopher mounds
- Beaver “slides” or trails made as they access the underwater entrances to their dens
- Trees or brush anywhere on the dam
- Cracking in a dam face
- New wet spots in a dam face or adjacent area
- Erosion of the dam caused by runoff, waves, vehicle ruts or cattle trails
- Erosion in the earthen spillway channel

When a potential problem is identified, do not procrastinate. Contact your local office of the Natural Resource Conservation Service for advice on possible repair options and take action.



Muskrat and beaver burrowing can compromise pond dams.

OSU Food Plot App

By - Blayr Gourley

Oklahoma State University released a wildlife food plot app to aid wildlife managers with food plot decisions.

Springtime is one of the most crucial times, in regards to nutrition, for wildlife. Now is the time to start planning for food plots.

The Wildlife Food Plots app includes information regarding white-tailed deer, wild turkey, northern bobwhite, mourning dove, ring-necked pheasant, and waterfowl. The app includes a description of many agronomic plants, planting dates, planting rates, fertility requirements and wildlife species benefited. A link to a soil sampling fact sheet is also included in the app.

The app is free and available for iPhone, iPad and iPod touch by searching for “wildlife food plots” in the app store. The app will be available for Android soon.



New Prescribed Fire App

By - Seth Coffey

Oklahoma State University has recently developed an app called RxBurnTracker. As vegetation state changes occur slowly over time, it can be difficult to determine how effective certain management practices are. RxBurnTracker provides land managers the ability to keep a photographic record of burn sites. RxBurnTracker allows land managers to document the pre-burn conditions and then an effective way to track vegetation re-growth after a burn. This is important for land managers because most native vegetation grows so slowly that it can be difficult for managers to remember what the site looked like 2 or even 6 weeks earlier. RxBurnTracker uses the photograph capabilities already residing within your phone. After the initial photo has been taken, you then have the ability to use the ghost imaging to align the new photo specifically in the same spot as before. RxBurnTracker is available for both Android and I-phones, and can be downloaded for free at the respective app stores.



AWARDS & RECOGNITIONS

- John Weir received the Henry A. Wright Lifetime Achievement Award from the Association for Fire Ecology.
- Emily Artz won Best Masters Student Presentation at the Central Plains Society of Mammalogists.

NREM News

- Dave Engle returned to his research program in NREM, Karen Hickman is now serving as interim department head.
- Dr. Jim Ansley will join NREM as department head in mid-March.
- Dr. Omkar Joshi, our new natural resource management faculty member, will join us shortly after Dr. Ansley arrives.

Events

- **Pawnee County Prescribed Burn Association Annual Meeting**, Pawnee County Fairgrounds - February 18, 2016
- **Oklahoma Natural Resource Conference**, OKC - February 24-26, 2016, OKC Convention Center
- **Ecological Society of America**, Fort Lauderdale, FL - August 7-12, 2016
- **American Fisheries Society Annual Meeting**, Kansas City, MO - August 21-25, 2016
- **The Wildlife Society 23rd Annual Conference**, Raleigh, NC - October 15-19, 2016
- **Society of American Foresters National Convention**, Madison, WI - November 2-6, 2016

Stay Connected

Facebook:

- OSU Natural Resource Ecology and Management
- Oklahoma State Society of American Foresters
- Oklahoma State University Range Club
- The Prairie Project
- Prescribed Fire eXtension CoP



Twitter:

prairieproject
RxFireCoP

Blogs:

Wildlife Chairs at OSU Blog -
wildlifechairwp.okstate.edu