Recruiting sessions:
Friday, April 21: Jenna Fusinatto, Laura Hertel, and Keith Goyne helped at the SNR booth for the Future Farmers of America – Missouri Conference. There was a large number of students from across the state!
Saturday, April 22: Sarah Humfeld and Julie Scroggs (CAFNR recruiter) visited with students at the 2nd Meet Mizzou Day event.

AWARDS and HONORS

The MU International Engagement Awards recognize the exceptional work carried out by faculty, staff and students to internationalize the University of Missouri. The awards recognize meaningful and sustained commitments to international work, whether directly on campus or brought back to campus by engagement abroad. Awards that focus on contributions to internationalizing MU are made across three categories: Outstanding faculty contribution; Outstanding staff contribution; and, Outstanding student contribution. Dr. Francisco Aguilar was this year’s recipient in the Outstanding faculty category.
Jaylen Bragg has been granted research funding by CAFNR's undergraduate research program. Jaylen will be working in the Limnology Lab under the mentorship of Rebecca North to investigate how ebullition rates vary across different land uses, sediment types, and temperatures. He will be part of the Linked UnderGraduate experiments on Nutrients (LUGNuts) training network, the objective of which is to create an international group of undergraduate students to work on a common project related to nutrient cycling in the environment.

Jaylen Bragg will also have an article submission published in the spring 2017 edition of *Artifacts* magazine. He wrote the article in Dr. Peter Motavalli's Soils and the Environment Writing Intensive class as an assignment and he recommended that the article be submitted to *Artifacts*. The title of the article is *Takeover of Invasive Species Due to Climate Change: The Bush Honeysuckle*. This article is about how invasive species are spreading throughout the Midwest due to climate change, specifically the Bush Honeysuckle.

Phillip Klenke, an undergraduate student in F & W, has been awarded a Life Sciences Undergraduate Research Opportunity Program internship for the 2017-2018 academic year to conduct research on great horned owl diets in Prairie Fork Conservation Area and in the Arkansas Ozarks with Mitch Weegman and Matt Gompper.

Congratulations to Amanda Wolfgeher, M.S. student in Natural Resources for being the Spring 2017 recipient of the James and Carolyn Brandle Scholarship in Natural Resources. The scholarship recognizes students with merit who have financial need and provide service to the University or their community. Jim and Carolyn are both graduates of the University of Missouri, Jim in Forestry and Carolyn in Education. Amanda’s research focuses on evaluating the effects of prescribed fire on soil physical and chemical properties, including nutrient flux, in forest soils of the Missouri Ozark Highlands. In conjunction with other ongoing research, her research will help determine the sustainability of using prescribed fire as a management tool in the Ozark Highlands.
PRESENTATIONS/PUBLICATIONS/RESEARCH HIGHLIGHTS


**Sara Lalk** should have been recognized for two poster presentations in last week’s edition so they are listed now:

**Light Production by Armillaria Mushrooms**
(pictured)
Lalk, S., Mihail, J.D.
School of Natural Resources and Division of Plant Sciences
Sara Lalk- sr1m84@mail.missouri.edu
Dr. Jeanne Mihail- MihailJ@missouri.edu

**Rapid White Oak Mortality- Associated Cankers**
S.R. Lalk, S.E. Reed
School of Natural Resources and Division of Plant Sciences
Sara Lalk (as above)
Dr. Sharon Reed- ReedSh@missouri.edu

**Robert Pierce** has served on the Steering Committee and collaborated with James Quinn and Travis Harper with MU Extension and several stakeholders representing Missouri Bee Keepers Association, Master Gardeners, and Master Naturalists in the development of the **Missouri Master Pollinator Steward Program,** which will be delivered through MU Extension Centers across the state during the winter of 2017 and 2018. Pollinators, such as bees, birds, butterflies, bats and insects, play a crucial role in the production of most fruits and vegetables. They also support healthy ecosystems that clean the air, stabilize soils and support wildlife. Studies show that pollinator populations are in decline because of a loss of feeding and nesting habitats, pollution and the misuse of pesticides. This program will provide information to learners on the importance of pollinators to our agricultural economy and food supply as well as benefit many other ecological systems. MU Extension specialists and stakeholders in the field developed this unbiased, research-based curriculum, which includes hands-on activities and classroom presentations. Here is a link to the Master Pollinator Steward Program website for additional information: [http://extension.missouri.edu/pollinator/home.aspx](http://extension.missouri.edu/pollinator/home.aspx). The first chapter of curriculum on plant and pollinator relationships has been developed in collaboration with SNR students and Dr. Candace Galen in Biological Sciences. Here is the link to M402, Missouri Master Pollinator Steward Program: Pollination Mechanisms and Plant-Pollinator Relationships, [http://extension.missouri.edu/p/M402](http://extension.missouri.edu/p/M402).
Ranjith Udawatta, Clark Gantzer, and Shibu Jose were invited authors of a book chapter titled “Agroforestry Practices and Soil Ecosystem Services (305-327pp)” in the Madhi Al-Kaisi and Birl Lowery edited Soil Health and Intensification of Agroecosystems published in March 2017. Abstract: Supporting, regulating, provisioning and cultural services are ecosystem benefits enjoyed by humans. According to the 2005 Millennium Ecosystem Assessment (MEA), humans are depleting Earth’s natural resources and living capital, decreasing biodiversity, and putting the wellbeing of current and future humanity at risk. Balancing ecosystem services with agricultural production is essential to meet the needs of a growing global population while minimizing environmental impacts of agriculture. Soils under agroforestry (AGF) practices promote many ecosystem services. Enhanced carbon sequestration is a major regulating service that helps mitigate global warming and can increase soil productivity. Agroforestry practices also improve soil and water conservation, soil water storage, soil biodiversity, and reduce chemical pollution effects on water quality. These services are difficult to measure independently, because they are interlinked. Landowners and farmers who adopt these practices provide multiple services and benefits to society at local, regional, continental, and global scales.

UPCOMING EVENTS/MEETINGS/ANNOUNCEMENTS

Agroforestry Workshop @ the Allen Project Site; 8:30 a.m. To 4:30 p.m.; April 29, 2017; Hot Lunch Served; Workshop Features: Growing Ginseng, Shiitake Mushrooms, Other Forest Products; Forest Management for Forest Products; Control of invasive species in fields & forests; Birds of Prey and Eagle Nest Viewing; Glade Restoration and Management; and, Natural Beekeeping. The Allen Research and Education project site is located east of Laurie, Mo. on “Old Eight” which runs between highways O and P. Highway “O” intersects Highway 5 at the red light in Laurie, Mo. The address is 30118 Old Eight Road, Gravois Mill, Mo. 65037-3876. This address brings you to a gate at the entrance of a trailer and outbuildings. The gathering site is in a valley east of the trailer site by approximately a quarter of a mile on Old Eight Road. (Facing the gate, east is to your right!) Visit website: www.centerforagroforestry.org; CONTACT FOR WORKSHOP DAY ONLY: 573-999-1541

Prairie Fork Conservation Area update: We finished off last week with Kindergartners exploring birds’ beaks, along with scavenger hunts. This week we have seen 6th graders exploring what’s in the water under microscopes. We have seen two groups of second graders who explored what’s in a wetland, the amphibian life cycle, along with I spy on this walk. Photo (by Amber Edwards): Second graders having a staring contest at Prairie Fork with a bull frog at the ponds edge. This opportunity went on for about five to ten minutes until someone scared the bull frog off.
Dr. John Organ, Chief of the Cooperative Fish and Wildlife Research Units of the U.S. Geological Survey, will be in Columbia for our SNR Research Day where he will be giving the talk: Challenges of Integrating Science Into Policy, Wednesday, May 3rd at 5:30 PM at Monsanto Auditorium. More information about John can be found at: https://www.coopunits.org/Headquarters/People/John_Organ/index.html

There will be two time slots where students and faculty can meet John: Note that these times are firm as the meeting rooms are occupied before and after these time slots.

Wednesday, May 3rd:
2-3 PM in 210 ABNR: open meeting with students, post docs, and research staff
3-4 PM in 104 ABNR: open meeting with faculty

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2017 Crop-Soil-Agronomy Annual Meeting – A Joint Symposium and an Oral Topical Session in Tampa, Florida

A 2-hour tri-society joint symposium titled “Agroforestry for sustainable resource management and food security” organized by Gregory Ormsby and Ranjith Udawatta will be held at the 2017 Annual CSA meeting in Tampa, Florida during the conference week of October 22-25, 2017 (Program dates and times are not finalized yet). This session will provide the latest science and advances in sustainable management of soil and water resources using trees and shrubs integrated into agricultural systems to enhance food security in both temperate and tropical regions of the world. The speakers will provide details on carbon sequestration, soil health, and water quality and quantity improvements in integrated agroforestry systems. They will also explore how these benefits can help promote advancing the adoption of sustainable agroforestry practices for enhanced natural resource management and food security. Speakers and titles are:

**Shibu Jose:** “Agroforestry’s potential for diversifying food production while providing ecosystem services in temperate North America”

P.K. Ramachandran Nair: “Agroforestry for carbon sequestration and climate change Mitigation”

**Ranjith Udawatta:** “Water quality and quantity: How agroforestry can help?”

Pedro Sanchez: “Agroforestry for soil health and food security in the tropics”

The Oral Topical Session entitled “Agroforestry for soil health and water quality benefits” is sponsored by the Soil and Water Management and Conservation Division of Soil Science Society of America (SSSA). We would like to invite you to present your research findings on agroforestry related soil health and water quality work at this session in Tampa. The abstract submission deadline is May 9, 2017. https://www.acsmeetings.org/submit
The spin-off start-up Elemental Enzymes, as a result of the collaborative research between MU Center for Agroforestry (UMCA), MU Department of Veterinary Pathobiology and MU Life Science Center, has recently signed a license agreement with Bayer. The spin-off from the collaborative translational research projects has created >30 full-time positions for the scientists and professionals in the region. Currently, there are more than 2,000 ongoing field trials in the U.S. and Canada, and the operation has been further expanded to Central America, Europe, Australia and New Zealand in 2017. (Submitted by Chung-Ho Lin)

There are spots still available for the Natural Resources Careers Academy, deadline May 6th. We are looking for current juniors in High School who are interested in Natural Resources to join us July 9th-14th. More information can be found at https://cafnr.missouri.edu/summer-academies/natural-resources-careers-academy/

SPOTLIGHT

Undergraduate students enrolled in Methods of Interpretation (PRT 3231) built a cardboard boat and entered it into CAFNR’s “Float-Your-Boat” fundraiser for the Missouri Food Bank. Our intention was to bring awareness to the Asian carp issue that is plaguing Midwestern waterways, and how these fish are damaging the tourism economies of affected waterways. Carp samples were also available for those brave or foolish enough to eat an invasive species. The boat, Carpe Diem, sunk on its maiden voyage. After all, carp need to live in the water! However, the class was able to snatch victory from the jaws of defeat as we won the coveted Titanic award, easily beating out CAFNR’s other entry which also sunk. Cheers to those who built the craft and those who commandeered it. (Submitted by Mark Morgan)
First in Line, First in Time

in Fish and Wildlife at the University of Missouri

1932 - Werner O. Nagel was the first student to obtain a degree in wildlife conservation at MU.

1934 - Rudolf Bennitt and Werner O. Nagel established one of the first wildlife science programs.

1936 - Stephens Hall was built; one the very first Wildlife Units in the country to have its own building.

1937 - Wildlife Research Unit formed and Dr. Paul D. Dalke became first Wildlife Unit Leader.

1937 - Willard L. Henning was the first student to receive a Master’s Degree in wildlife.

1941 - Paul G. Barnickol was the first student to receive a Master’s Degree in Fisheries.

1944 - Dr. Robert S. Campbell, a limnologist from Canada, was first aquatic scientist hired.

1947 - Katheryn L. Paullus was the first female to graduate with a Master’s Degree in wildlife.

1952 - Dr. Arthur Witt, Jr. was the first ichthyologist hired.

1962 - Missouri Cooperative Fishery Research Unit established with David I. Foster as Acting Director.

1963 - Dr. Richard O. Anderson becomes first leader of the Missouri Cooperative Fishery Research Unit.

1971 - Sandra A. Chambers was the first female to graduate with a Master’s Degree in Fisheries.

1985 - Dr. Charles F. Rabeni became the first leader of the combined Fish and Wildlife Research Units.

Compiled by Joe G. Dillard, Room 47 Archivist from a variety of sources.
The student organization SPRTA (Sport, Parks, Recreation and Tourism Association) had their “Senior Send Off Social” at the Heidelberg on Monday, April 24. They celebrated a successful school year of fundraising and community service. This year they raised over $1,000 by volunteering for MPRA, CAFNR South Farm Showcase, Chipotle Profit-Share. SPRTA donated money to SNR Alumni for scholarships through the Trivia in the Wild event, welcomed professionals to guest speak to their group, and bonded at Venture Out in addition to many other meetings and activities. They congratulated the outgoing senior executive board members and welcomed the newly elected officials for the 2017-2018 Academic year.

Congratulations to the outgoing executive board members:

President Kayla Barker  
Vice President Patrick Lacey  
Treasurer Cody Schniedermeyer  
Secretary/SNR Rep Samantha Hayworth  
Professional Development Chair Trevor Hartshorn  
Events Chair Madalyn Mussey

Welcome to the new executive board members-elect for the 2017-2018 year:

President Elect Leo Theodore  
VP Elect Logan Brinkley  
Treasurer Incumbent Cody Schniedermeyer  
Secretary/SNR Rep Elect Zach Johnson  
Professional Development Chair Elect Madalyn Mussey  
Events Chair Elect Trevor Hartshorn

**Folklore class teaches appreciation for nature through writing:** The dream of exploring the outdoors in a relaxed environment may seem out of reach in most classes at MU, but Professor Mark Morgan has made this a reality for six students. Morgan, an MU associate professor, teaches Human Dimensions of Wildlife through the School of Natural Resources. He created the idea for the parks, recreation and tourism writing intensive course after reading *Ozark Outdoors* by Vance Randolph, an individual largely responsible for popularizing the region. Continue reading the complete article in the CAFNR Corner Post (For the Students, By the Students of the MU Science and Agricultural Journalism Program) you can find it at the link below: [http://cafnrcornerpost.com/2017/04/mark-morgans-folklore-class-teaches-appreciation-for-nature-through-writing/](http://cafnrcornerpost.com/2017/04/mark-morgans-folklore-class-teaches-appreciation-for-nature-through-writing/)
DONOR SPOTLIGHT

Dr. James Brandle (MS and PhD Forestry) and his wife Carolyn Brandle (BS and MS in Education) have provided for an estate gift in the School of Natural Resources (SNR) to establish a permanently endowed scholarship fund to support graduate students. Criteria for selection is based on merit, need and service to the University or the community. The Brandles also make an annual donation to be given to a worthy graduate student in SNR. Ms. Amanda Wolfgeher (currently advised by Dr. Keith Goyne) is this year’s recipient. Past recipients include Dr. Chris Lee (advised by Dr. Rose-Marie Muzika), Dr. Christine Brodsky (advised by Dr. Charles Nilon) and Ms. Lisa Groshong (currently advised by Dr. Sonja Wilhelm-Stanis). The Brandles have also established an estate gift for scholarships in the MU College of Education, Department of Special Education. After completing his PhD in Forestry with Drs. Gregory N. Brown and Thomas M. Hinckley, Dr. Brandle became a Post-Doctoral Fellow in the Department of Range Science at Utah State University. In 1975 he began a long and productive career at the University of Nebraska-Lincoln (UNL). For over 30 years he served the University as a Shelterbelt Ecologist. His research focused on the role shelterbelts play in agricultural systems. "Shelterbelts returned the Great Plains back to productive crop lands following the dust bowl of the 1930s. Approximately 160,000 miles of Shelterbelts or Windbreaks protect nearly 8 million acres of Great Plains crop land today. Jim is world renowned for his work on Shelterbelt ecology. We are extremely thankful to Jim and Carolyn for their generous contributions to our School. His estate gift is helping SNR enhance its graduate education mission further", said Shibu Jose, Director of the School of Natural Resources. Dr. Brandle recently retired from UNL as Professor Emeritus.

This Weekly Reader will be distributed electronically every Friday (except during breaks). Please send announcements to Cindy Greenwood, Editor (greenwoodci@missouri.edu) by Thursday @ 5 p.m. If you’d like to unsubscribe from the Weekly Reader, please email Cindy. Thanks to Laura Hertel for the Weekly Reader Tiger logo.