Several years ago, MU changed “Winter Semester” to “Spring Semester” - the weather gods apparently didn't get the memo. A 12-inch snow in late February closed campus for one and a half days; and another 4-5 inches less than a week later made for a very white “Spring Semester” across campus. And, although we enjoyed Spring (really??) Break, temperatures in the mid-30’s and snow flurries on May 3rd have us wondering about “Summer” Welcome! :)

Along with the basic business of teaching/learning, research, and outreach we are busy with looking ahead. The School is in the midst of a 5-year Assessment and Strategic Planning effort and there are a lot of exciting things on the horizon.

At the School level we continue to work toward the consolidation of our graduate degrees (something I wrote at length about in the last issue of The Resource). We just received notification that the changes have been approved and faculty are crafting learning outcomes for both the M.S. and Ph.D. degrees. At the undergraduate level we anticipate good discussions about revitalizing our internal Divisional Honor's program and enhancing faculty and student engagement in the campus Honor's College. Within our departments, planning for the future is at the forefront of our activities. In Forestry, Drs. Steve Pallardy and John Dwyer have announced their respective retirements for summer 2013 (more on this on page 5). The Forestry faculty are crafting a proposal to fill John's position with someone who can teach Forest Management, and also lead a deeper focus in Wildland Fire Ecology and Management. This plan may create an undergraduate emphasis (or certificate) and a graduate certificate in Fire Management. This is a hot (had to say it!) area of professional need as management of prescribed and wildland fires is an increasing challenge (partly linked to climate change). The Forestry faculty also are discussing a collaboration with our College's Division of Plant Sciences to create a new minor in Urban Forestry/Native Plant Horticulture (we obviously need to work on the name!). This would address one area of Steve's expertise and we also hope to secure a faculty position in tree psychology (drought stress, climate change, carbon sequestration).

PRT continues to plan and adapt to the challenges created by the addition of the Sport Management emphasis. That emphasis is now home to well over 500 students. The department is currently searching for a new faculty member who will teach in the PRT core curriculum. This position was funded by campus in response to the huge enrollment surge in PRT. In addition, PRT is in the midst of hiring two new staff: one focused on advising and career placement, the other in supporting the burgeoning internship program.

Soil, Environmental, and Atmospheric Sciences are looking forward to the hiring (by fall 2013) of a new Atmospheric Science faculty related to “bio-meterology.” This hire will engender re-distributions of teaching assignments among the existing 3 positions; and reducing overall teaching and advising loads (currently the heaviest in SNR). SEAS also will be implementing a new Hydrology track within the Environmental Science Emphasis. This new focus is in response to clear demands from the job market for more graduates with this expertise.

The challenges facing Fisheries & Wildlife Sciences in the next few years are related to meeting the needs of constant, incremental student growth. FWS has ~200 undergraduates and has experienced a 57% growth in student credit hour production (course size!) over the last 5 years. Several courses in the core curriculum are being taught (very well, I might add!) by adjunct faculty. We have just received approval to move ahead with a faculty hire to help address these needs.

Our 5-year Strategic Plan will have many other initiatives laid out, but these are among the most notable. Our overall goal is to maintain the very high productivity in research (2012 saw the highest research publication rate for tenure-track faculty in our history), the effective transfer of science-based information to society, and the very best in education experiences for our students. If anyone wants to hear more about what’s happening in SNR (keep reading The Resource!) and please feel free to contact me at RyanMR@missouri.edu

Happy Summer!
Dr. Trista Strauch receives 2013 Outstanding Early Career Teaching Award

Dr. Strauch, assistant professor in both the animal science and fisheries and wildlife departments, has been with CAFNR for five years and is also the coordinator of the Captive Wild Animal Management program (read more on page 19).

“The Captive Wild Animal Management minor has expanded beyond any of our expectations,” related Rob Geisert, professor of animal sciences. “Currently there are 155 students interested in the minor with over 100 that are on track to complete the minor. This success is totally due to the devotion to teaching and mentoring that Dr. Strauch has provided.”

Julia Neidhardt, a senior in agriculture and student of Dr. Strauch’s says, “Her devotion to student learning comes easily because she’s so passionate about her subject...Her enthusiasm is infectious and students, like myself, usually are motivated into further study of the subjects.”

See official CAFNR Award Presentation here.

A research team which includes SNR Associate Professor Keith Goyne, along with members from Westminster College, the University of Arizona and the USDA-Agricultural Research Service, are working to intercept wayward antibiotics before they end up in lakes and streams, and they’re using common agricultural management practice to do so. Veterinary antibiotics are important tools for treating disease in livestock animals. But the antibiotics can present challenges when they find their way onto agricultural fields and into surface waters.

Antibiotics are given to livestock to treat disease and enhance growth, but animals also excrete antibiotics in manure, which can then be spread on agricultural fields. From the fields, they can leach into groundwater or enter nearby surface waters. Antibiotics in these environments could potentially lead to poor water quality and resistant bacteria including pathogens.

The research team is intercepting the transport of antibiotics through the use of vegetative filter strips (VFS). VFS are areas of land with abundant plants created between fields and bodies of water to block runoff. The team (led by Keith Goyne and Irene Unger) found that relatively large doses of antibiotics left the microbes largely unchanged, suggesting that VFS could be a suitable tool for capturing antibiotics in agricultural field runoff.

“VFS can intercept surface runoff water, and the presence of perennial vegetation (in the strips) can lead to changes in soil properties that help capture and retain the antibiotics,” explains Goyne. “Also, with greater plant diversity, the microbial communities are expected to be more active and diverse, which should lead to greater degradation of trapped antibiotics.” This research was funded by The Center for Agroforestry at the University of Missouri through a cooperative agreement with the USDA-Agricultural Research Service.

Full story here (with link to abstract).

Photo: Google Earth imagine of research sites with VFS.
Joshua Millspaugh, Pauline O’Connor Distinguished Professor of Wildlife Management, was chosen as the first recipient of the University of Missouri’s Southeastern Conference Faculty Achievement Award.

This annual award recognizes one professor from each of the 14 SEC member universities who have meritorious records in teaching and scholarship and who serve as role models for other faculty and students.

“I love the culture here at Mizzou,” Millspaugh said. “I especially love the culture of CAFNR. The faculty and staff truly care about the students and teaching. That is hard to find in a big research institute. I am so thankful for the wonderful support network in the administrative side of CAFNR, from the Dean to the department chair. CAFNR has been a great place for me to develop a career.”

See full press release here.

William H. Byler Distinguished Professor Award

Dr. Steve Anderson, Albrecht Professor of Soil Science, is the 2013 recipient of the William H. Blyer Distinguished Professor Award! This prestigious award was established in 1978 by Dr. Byler, Senior Vice President for Research, U.S. Radium Corporation, for recognition of outstanding abilities, performance, and character.

To see more information and list of previous recipients, click here.
John Dwyer, Associate Professor

Dr. Dwyer joined the University of Missouri Faculty in July of 1983 and received his Ph.D. from MU in 1988. Throughout his 30 year career, Dr. Dwyer has many accomplishments and fond memories, some of which have been listed here. Taking over the Natural Resources Practicum class when in its development stage and turning it into an exciting learning experience that many students say was one of the best courses they took during their academic career. Dr. Dwyer is proud of his efforts with placing forestry students with the Weyerhaeuser Company Internship Program and the Rock-Tenn Corporation for those students gained valuable “foot-hold” in the forest industry. His forest consulting business, Show-Me Forestry Consultants, LLC, has helped and empowered numerous clients with the confidence to manage their forest to obtain their objectives. In regards to research, Dr. Dwyer feels he’s made an impact through his work on identifying factors behind Oak Decline and making management recommendations, quantifying nutrient losses from whole tree biomass harvesting, developing forest management scenarios to improve the growth and value of Missouri’s forests, and conducting feasibility studies to determine the economics of harvesting small-diameter woody biomass for use in combined heat and power plants. When looking into the future, Dr. Dwyer says, “I plan to spend time with my wife traveling around this great state, and maybe taking a cruise to Alaska. I would like to possibly serve as a faculty chaperon for MU students traveling abroad. I will re-acquaint myself with my bass boat and try drowning some worms, and dispelling the rumor that there are no quail left in Missouri.”

Steve Pallardy, Professor

Dr. Pallardy received his Ph.D. from University of Wisconsin and joined the University of Missouri Faculty in January of 1980. Throughout his 33 year career, Dr. Pallardy has many accomplishments, some of which include: having taught foundational courses in Dendrology as well as Urban Forestry and Ecology and Renewable Resource Management and provided graduate education not just within SNR but throughout the University, authored four textbooks (including the standard used within his field, “Physiology of Woody Plants”), and was awarded the Kemper Fellowship for Teaching Excellence in 2003. Within research, he directed (or co-directed) the theses and dissertations of twenty-six graduate students, served as a program manager for two USDA Competitive Grants programs (Forest Biology in 1990 and Plant Responses to the Environment in 2003), served as an Associate Editor for the Forestry Service for many years as well as on the editorial boards of Forest Ecology and Management as well as Tree Physiology, and was named a Fellow of the American Association for the Advancement of Science in 2011. Dr. Pallardy was also the Department Chair for the Forestry department from 2003-2006, Director of Graduate Studies for Forestry from 2010 to the present along with being the Director of the Baskett Research and Education area from 2010 to present.

When asked what his plans are for retirement, Dr. Pallardy says, “Stay active in research for a while. Otherwise, I’d like to do some traveling, photography, work on my somewhat neglected house and do whatever else catches my fancy.”
Can rivers help America grow, transport and manufacture biofuel?

By: Randy Mertens

Are the Missouri and Mississippi rivers and their floodplains the key to America replacing a portion of imported oil with domestic biofuel by 2022? A consortium of more than 40 academic institutions and agricultural and energy companies say yes.

Shibu Jose, director of the Center for Agroforestry at the University of Missouri - the lead institution in the Mississippi/Missouri River Advanced Biomass/Biofuel Consortium (MRABC) - says recently completed preliminary research shows that America's two great rivers can support an effort to economically take biofuels from plants harvested in waste ground to finished biofuel pumped into fuel tanks. The organization's next step is to find funding to build a prototype bio-processing facility that will create the first gallon.

If implemented, the plan could create about two-thirds of the 21 billion gallons of biofuel called for in federal goals by 2022, Jose said.

Jose said U.S. plans to produce 36 billion gallons of biofuel by 2022 are falling short because of three bottlenecks: reliable and large-scale biomass availability; economical transport of bulk quantities of plant material; and an infrastructure of bio-refineries to efficiently convert it to fuel. The rivers and the lands near them provide a solution to all three problems, he stated.

The preliminary research was funded by the College of Agriculture, Food and Natural Resources, Mizzou Advantage, and the MU Office of Research.

It will take an enormous amount of land to grow enough plant matter to convert it into 36 billion gallons of biofuel. A criticism of U.S. ethanol production is that it diverts corn for food and feed into corn for fuel.

Jose said the preliminary research shows there are about 116 million acres of marginal land near these rivers that are unsuitable for traditional crops because of flooding, erosion and poor soil. These lands can be planted with biofuel crops like switch grass, poplar trees, willows, energy cane or Miscanthus which can thrive in these areas and can be regularly harvested. The biofuels wouldn't hinder current food production as they would be planted in areas not capable of conventional production, Jose pointed out.

This method of production is environmentally friendly, Jose said. Many of these plants require little to no fertilizer. Most are soil stabilizing plants, holding the soil in place. Additionally, he continued, the biofuel plants could absorb fertilizer runoff that would normally be carried down to the Gulf of Mexico. This nitrogen-rich runoff starves coastal areas of oxygen from Houston to Biloxi, creating what scientists call the Gulf Dead Zone.

Jose estimated that by planting biomass crops on six million acres - just five percent of the marginal land available around the rivers - would produce enough raw material to be converted into seven billion gallons of biofuel. This will be a dramatic increase over the less than one million gallons expected to be produced in 2012. This land, which would follow the rivers from St. Paul, MN and Sioux City, IA to New Orleans, would equal the approximate 5.9 million acres of soybeans that are harvested in Missouri.

Jose's estimates are also supported by a University of Nebraska-Lincoln study showing that switch grass grown for biofuel production produces 540 percent more energy than needed to grow, harvest and process it into cellulosic ethanol. These researchers found that switch grass grown on the marginal fields produced an average of 300 gallons of ethanol per acre compared to average ethanol yields of 350 gallons per acre for corn. UNL scientists have been studying switch grass production since 1990.

The final part of the MRABC plan would see the creation of regional biofuel processing and refining plants along the river. Jose imagines facilities near harvest sites will process the biomass into easier-to-ship pellets or liquid fuel. Such energy-dense products could be economically shipped via truck throughout the U.S. or through the Port of New Orleans for export.
Planting on marginal lands and utilizing existing barge infrastructures are the easy parts of the plan. Jose said the MRABC consortium needs $10 million in grants per year for the next five years to construct an experimental bio-refinery for demonstration and testing. MRABC has industrial partners capable of scaling up the model up to two million gallons of biofuel - twice as much as was created in the U.S. last year.

“Currently, five out of every 10 gallons of fuel we pump into our cars comes from a foreign country,” Jose commented. “You only have to read today’s newspaper headlines to know why that is unacceptable from a national security and economic security standpoint.

To read the entire story by Mr. Mertens, [click here](#).

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**Forestry Graduate Donates Peonies**

A 1960 Forestry Graduate, Don Hollingsworth continued on to receive a MS in Forest Economics before venturing into the world of developing both peonies as well as his reputation. Mr. Hollingsworth recently generously donated several Itoah peonies to the University of Missouri Botanic Garden.

Known as the Dean of Peonies in Missouri and throughout the Midwest, Mr. Hollingsworth runs the well known and respected Hollingsworth Peony Nursery in Maryville, Missouri, all while still being an active key member of the American Peony Society.

Mr. Hollingsworth developed one of the earlier Itoh hybrid peonies, Garden Treasure, and has hybridized other new peony cultivars within his career. The donated Itoh peonies are currently being evaluated to determine their final placement within the Mizzou Botanic Gardens.
Patrick Market, an associate professor of Soil, Environmental and Atmospheric Sciences in SNR, and a team of students have been working on analyzing the storm known in history as the Great Blue Norther of 11/11/11. A summer-like morning froze to death in heavy snowfall that evening which left many individuals stranded due to being unable to anticipate what was happening.

In central Missouri, the storm hit around 2PM and changed warm breezes to howling northerly gales. Old Columbia weather records show that in just one hour the temperature fell from 82 to 38 degrees. By 4PM there was sleet with an air temperature of 30 degrees. By midnight, the temperature was just 13 degrees which meant a 69 degree temperature differential occurred all in one day - a record that has never since been broken.

Along with destruction in Missouri, the storm spawned tornadoes throughout the Midwest. Nine tornadoes occurred in Michigan, Illinois and Indiana. In Janesville, Wisconsin, one of the first American cities affected, what looks like an EF4 tornado killed nine and injured 50. Buildings near Owosso, Michigan’s downtown were pushed over into strange shapes. Homes in Virginia, Illinois, looked like they had exploded.

Within 14 hours, the temperature dropped to 11 degrees with rain turning into thunderstorms and hail, then sleet and heavy snow.

Market and his team gathered 1911 US and global weather data to create a modern weather map based on the latest technology and understanding how planetary weather patterns work. With this updated map, Market and his team looked for similar modern storms that have been analyzed with state-of-the-art radar, satellite imagery, global computer model dynamic analysis, and high altitude winds aloft and pressure soundings.

By: Randy Mertens
To see full story, click here.

Missouri Cooperative Fish and Wildlife Research Unit Celebrates 75 years!

The year 2012 marked the 75th anniversary of the Missouri Cooperative Fish and Wildlife Research Unit. This was quite a milestone, and it is no coincidence that this anniversary is shared with the Missouri Department of Conservation and the Wildlife program at the University of Missouri. One of the first acts of the Missouri Conservation Commission was to establish a Research Unit at the University of Missouri, which was the start of the wildlife program. Much has changed since Paul Dalke was the first leader in 1937, including the establishment of the Fisheries Unit in 1962 (Dave Foster as the first acting Unit Leader and then Dick Anderson was leader from 1963 to 1984). In 1985, the Wildlife and Fishery Units combined to the structure we have today. I am not a history buff, but am proud to be part of the legacy of the Missouri Unit that once housed Rudy Bennitt, Tom Baskett, Reid Goforth, Dick Anderson, Charlie Rabeni, and David Galat. This year was the first year since 2003 that we were fully staffed and we wanted to show a small token of our appreciation to our cooperators. At our Cooperators Meeting in September in front of over 48 people from 7 different agencies, we presented framed artwork with engraved nameplates signifying our appreciation to each cooperator present: the Fisheries and Wildlife Sciences Department at MU, the Missouri Department of Conservation, and the US Fish and Wildlife Service. We kept the presentation a surprise until the meeting and I believe all the cooperators did not see this coming! The key to the success of the Coop Unit program is the cooperators and we are thankful for the last 75 years and look forward to the next.

By: Craig Paukert, Unit Leader
To see more about the presentation and read the rest of Muddy Waters (News from the Missouri Cooperative Fish and Wildlife Research Unit), click here.
The Forestry Club just recently returned from the 61st annual Midwestern Forester’s Conclave. The event was hosted by Michigan State University in Mason, Michigan. With the delayed return of our Peg and Raker saw, 3 years to be exact, we were very excited to compete. Overall we competed very well and are very proud of our members and our STIHL competitor.

Dave McCorkell competed in the STIHL Timbersports Collegiate Competition this year for MIZZOU. We could not be more proud of how he performed. He stayed in the running the whole time and was only two points behind the leader in the end for a second place finish. Overall as a team we are really becoming more and more competitive and look forward to doing big things in future competitions. The STIHL competition aired on the Outdoor Channel at 3pm on April 21st.

We welcomed a new school to our Conclave this year. Ohio State University participated for the first time in several years in the timbersports competition. They finished in last and were given a Peg and Raker saw as a consolation prize. At that time it was the only good piece of equipment they had to compete with. MIZZOU was somehow lucky enough to win two brand new competition axes in a raffle. As a team we decided that Ohio State could really benefit from having a new axe, so as a welcoming present to Conclave we gave one of the new axes to Ohio State. We tried to pass on some of our wisdom to them about how to care for the new axe and saw what they were walking away with. They were very appreciative and I think we made a lasting impression on them and many other teams at Conclave.

Overall we had a very successful trip and we are looking forward to Timberfest in the fall. Forestry Club has lots of big ideas for the group and a lot of new projects on the horizon and we are looking forward to what the next year is going to bring.

By: Abby Kircher
SNR STUDENT COUNCIL
SNR Student Council has had a successful Spring semester! We ended last semester with our annual Change for Charity event where we raised over $800 for our Adopt-A-Family. We were very pleased with the overwhelming response from students and faculty and we were able to make a family’s Christmas very memorable. The December graduation was also a great success! This semester we worked on putting together a SNR Carnival to help other students around the University learn about the School of Natural Resources, who we are, and what we do. We are planning on a carnival theme with a popcorn machine and hotdog meals for purchase. We also will be holding our Senior Luau on May 9th which is a way we congratulate the seniors graduating in May. Hope to see you at our events!

AMERICAN FISHERIES SOCIETY
The 2012/2013 school year has been an active year for the University of Missouri's Fisheries and Aquatic Science Society. We maintained many of our traditional activities and also introduced a few new ones. I would like to give thanks to our former president, Deanna Anglin, for making this past year a success and for the dedication she has given to the University of Missouri’s student chapter for over the past four years.

This past fall we initiated a long-term resource monitoring program at a 5-acre pond just outside of town. Our first objective is to complete an age and growth study for the largemouth bass and bluegill populations. Additional work includes spring nesting surveys and bio monitoring. The club will also be volunteering with the United States Fish and Wildlife service this spring to collect pallid sturgeon for brood stock from the Missouri River.

We are always looking for new members, and encourage people from all backgrounds to join. As a proud member of the American Fisheries Society we enjoy a countless number of opportunities. For more information visit our website by clicking here.

SPORTS, PARKS, RECREATION AND TOURISM ASSOCIATION (SPRTA)
At SPRTA's first meeting we had a lot of new members join and Amanda Nusbaum was a guest speaker on the project Playground Possibilities. On February 13th at Buffalo Wild Wings SPRTA supported Rho Phi Lambda in a fundraising watch party. For professional development many SPRTA members want to attend conferences such as NIRSA and MPRA. To help with costs SPRTA members canned downtown on evenings as fundraisers. March 15-16th the March Madness 3 on 3 tournament was held at the Rec Center. The group also is donating time and funds to help the Special Olympics for a second year. Anyone can still join SPRTA - dues are $5.

ENVIRONMENTAL SCIENCE CLUB
This year we have been focusing more on fundraising and sold wildflowers at Columbia's Earth Day celebration. We have also included more team building activities such as hiking and camping trips. We have also kept up with networking opportunities for students and have sent members to various seminars like MDNR along with others.

METEOROLOGY CLUB
The 2012–2013 academic year has been a great year for the Atmospheric Science Department. The new students to the program have been engaging and eager to continue to make our department great. In September, we had the DOW visit for 3 weeks and assisted Dr. Fox with research. Numerous students got to help out with the deployments around the Columbia area during its time here. In October, the Meteorology Department and Club had great representation at the NWA Annual Meeting in Madison, Wisconsin. Fifteen representatives of our department were able to listen to numerous talks, network with leaders in our field, and mingle with countless alumni. As far as other club activities, we continue our monthly meetings and other various social activities. For the spring the club looks forward to attending the NWA Central Iowa Sever Weather Conference, electing new officers for the next year, and deciding on which major conference to attend next year. Club members also have the option to participate with Mizzou Storm Chase Team, which is hoping to build off the success of last year in which they intercepted a tornado near Alina on April 14, 2012. Our department and club loves interacting with alumni, so if you are ever in town, please us know or drop in and say hi!
Developing an Awareness to Nature’s Networks: The Soundscape

By: Christopher Bobryk
Department of Forestry, University of Missouri - Columbia

Have you ever heard a sound that magically transports you to another time or another place? A barred owl (Strix varia) bellowing “who cooks for you” before sunrise, ringing church bells, or even the crack of a 90 mph pitch off a wooden baseball bat; these particular sounds are only a few examples of what are fundamental elements of coupled human and natural systems.

Understanding the role that sounds play within an environment is the basis for a new, progressive ecological discipline termed soundscape ecology.

Sounds can tell us a lot about the environments we encounter, especially how the environment is changing. Recognizing the structure and diversity of a soundscape is a potential stepping-stone to identifying what a healthy ecosystem sounds like; however, the opportunity to experience natural sounds is decreasing rapidly due to the destruction of habitats and increased encroachment of urban noises. This brings up a crucial question in natural resource management; are there new measures of progress? Perhaps soundscapes may be used to help identify successful establishment of adaptive management practices.

The term soundscape was broadly introduced to the public by Dr. Bernie Krause (author of The Great Animal Orchestra). He has spent the majority of his life recording sounds of nature from around the world. From healthy coral reefs to the busy daily activities of African worker ants, Dr. Krause’s work has captured unique ecosystems, some that no longer exist.

A soundscape describes the arrangement and distribution of sounds within natural and human-mediated environments. It is generally broken down into three main categories: 1) Biophony: sounds generated from living organisms (bird songs, mammal vocalizations, or insect stridulations), 2) Geophony: sounds generated by physical processes (wind, waves, or running water), and 3) Anthrophony: sounds specifically generated from human-mediated processes (sirens, horns, construction equipment, airplanes, etc.). The overlap of these natural and human induced events creates the soundscapes as a whole.

The soundscape is comprised of various components that work together, create balance, and project physical characteristics of the environment for us to perceive. This perception is what helps us create a sense of place and meaning. The sound from organisms and the environment create a map, an acoustic road map, for us to read, navigate, explore and interpret our surroundings.

Drawing information on inspiration from our surroundings is nothing new. In fact, it has been going on for centuries. For example, Ludwig van Beethoven based his 6th symphony on the sounds of nature. Beethoven focused on the sounds of the landscape to evoke the beauty of bird vocalizations, the power of thunderstorms, and the many other sounds of nature that celebrate the joys of human connections to the Earth.

Ecologically, the sounds of nature form their own music, beautifully organized into their own symphonic niche and filled with information for us to interpret and tie to other elemental features of the landscape. Imagine what would happen in Beethoven left out a section of strings or percussion. The music would be distorted, unbalanced, something crucial would be missing. Quite similarly, if you remove one species, or even several species, that make up the environmental orchestra, then it too will become unbalanced.

Many soundscapes have cultural, historical, recreational, aesthetic, or even therapeutic values. Unique and natural soundscapes can be subtle but powerful links for humans to interact with their environment. There are many sounds in our world, natural and artificial, that can trigger a subconscious recognition of a previous event or place that we have embedded in our memories. Whether it reminds you of a hiking trip, fishing adventure, or even a big city visit, quite often particular sounds hold a special meaning.
Chillin’ with the Mentors

On January 24th, professionals gathered in Conservation Auditorium to give insight into the careers available after graduation from SNR. With over seventy students attending the event, they were advised to get involved in clubs and prepare for the days when sweatpants are no longer appropriate attire. After the general session, students and professionals were treated to delicious chili, and then broke into small groups according to fields of study. Everyone was enjoying the time to ask questions in a more personal setting, some even stayed after the event was over! Since 2007, this event has allowed students to network and “get the real scoop” on a career, more than any job description can say.

By: Jenna Fusinatto
SNR SCHOLARSHIP RECIPIENTS

Orval G. Caldwell & H. Ruth Gardner Caldwell Scholarship
Rachel Hoemann, F&W
Tristan Frealy, FOR
Alzina Hayes, SEAS
Dawan Baker, PRT

Charles H. Kirk Memorial Scholarship
Justin Warren, FOR

Bill T. Crawford Conservation Biology Scholarship
Casey Baumgartner, F&W

Donald P. Duncan Scholarship
Evalynn Trumbo, F&W
Tristan Frealy, FOR

Ann Weber Hoyt & Earl H. Hoyt Scholarship
Travis Schepker, F&W
David McCorkell, FOR
Abby Kircher, FOR
Ashley Hall, SEAS
Jerett Rion, PRT

Charles R. Fritschle Scholarship
David Calandro, FOR
Brittni Cambron, FOR
David Bourscheidt, FOR
Lawrence Bushan, FOR

G. Myron & Ethel M. Gwinner Scholarship
Robert Abney, F&W
Richard Saltzman, FOR
Seth Colston, SEAS
Robert Martinez, PRT
Molly Leach, F&W

McCormick Memorial Scholarship
Jason High, FOR

Kahrs-Miller Aquaculture for the Future Scholarship
Josey Ridgeway, F&W

H. Wilbur Allen Memorial Scholarship
Jackman Eschenroeder, F&W
Emily Brocato, F&W

Gwinner Scholarship
Molly Leach, F&W

Osal B. & Juanita V. Capps Scholarship
David McCorkell, FOR
Abby Kircher, FOR
Anne Pohlman, FOR

Lee K. & Lois Paulsell Scholarship
Abby Kircher, FOR

G. Andy Runge Scholarship
Philip Digasbarro, F&W
Anne Pohlman, FOR
Laura Satkowski, SEAS
Kelsey Thompson, PRT

School of Forestry Class of 1964 Scholarship
Jason High, FOR

Charles W. Schwartz & Elizabeth R. Schwartz Scholarship
Evan Grusenmeyer, F&W
Bennett Grooms, F&W
Sharone Nehorai, F&W

L. Morgan Schwind & Wanda R. Schwind Memorial Scholarship
Katie Fritzemeyer, F&W
Richard Saltzman, FOR
SNR SCHOLARSHIP RECIPIENTS

Roger Dustin Shaw Memorial Scholarship
Thaddeus Porter, FOR
Tristan Frealy, FOR

Thomas S. Baskett Scholarship
Skyler Schlick, F&W

UMC Forestry Club Scholarship
David McCorkell, FOR
Thaddeus Porter, FOR
Abby Kircher, FOR
Daniel Berger, FOR
Anne, Pohlman, FOR

Westveld Scholarship
Daniel Berger, FOR
Morgan Schmalz, FOR

Trisha Westhoff Yauk Memorial Scholarship
Victoria Landreth, F&W

Keith Roys Scholarship
Joepsh Peck, PRT
David Victor, PRT
Shinelle Proctor, PRT
Michelle Hull, PRT

William G. Kohner Scholarship
David McCorkell, FOR

Congratulations to all recipients!

2013 NOAA ERNEST F. HOLLINGS SCHOLAR

Christopher Soelle, University of Missouri B.S. Atmospheric Science 2015 student, recently was selected to be a 2013 NOAA Ernest F. Hollings Scholar!
The Hollings Scholarship Program provides successful undergraduate applicants with awards that include academic assistance, a 10-week, full-time internship position during the summer at a NOAA facility.
The internship between the first and second years of the award provides the Scholars with “hands-on”/practical educational training experience in NOAA-related science, research, technology, policy, management and education activities. To see more about the program, click here.
Department of Public Works' Preston Cole Elected Chair of Wisconsin Department of Natural Resources Board

Preston Cole, Director of Operations for the City of Milwaukee Department of Public Works (DPW), was elected chairman of the State of Wisconsin's Department of Natural Resources (DNR) Board on January 23, 2013. Cole was appointed to the board in 2007, and most recently served as vice chair. He replaces outgoing chair Dave Clausen of Amery, WI.

Cole joined the City’s DPW in 1991 as a Forestry Operations Supervisor. Since then, he has risen through the ranks as the City Forestry Services Manager/Deputy City Forester, City Forester, and Environmental Services Superintendent before being named Director of Operations in 2009. He is the co-chair of Mayor Tom Barrett’s Green Team, with a mission to create a more sustainable Milwaukee through storm water reduction practices, energy conservation programs, and waste reduction initiatives, while creating green jobs.

Cole earned a Bachelor of Science degree in Forest Management at the University of Missouri School of Forestry, Fisheries and Wildlife in 1987. After graduation, he served as Resource Forester at the Missouri Department of Conservation - St. Louis Forestry Division, the first African-American forester to be hired by the department. From 1989 to 1991, Cole was appointed Parks Superintendent for the City of St. Louis Department of Parks, Recreation, & Forestry before coming to Milwaukee.

Active in the community, Cole served on the Milwaukee Metropolitan Sewerage Commission (MMSD) from 2000-09, and was chair of the commission from 2007-09. Currently, he serves on the National Arbor Day Foundation Board of Trustees (chaired the board from 2000-02) and the Menomonee Valley Partners Board of Directors.

Cole was named a Business Journal Serving Greater Milwaukee “Forty Under 40” award winner in 1998.

2012 Eastern Region Wildlife Specialist of the Year

Lucas “Luke” J. Miller, a 2006 Wildlife Sciences graduate, was selected as the Eastern Region Wildlife Specialist of the Year for 2012 following a glowing recommendation to which Charles Brown, Eastern Regional Director of the USDA-APHIS-Wildlife Services adds, “Luke embodies all the desired traits for this award. He is a dedicated and serious practitioner of professional wildlife damage management. He has demonstrated a very strong work ethic and has established a positive working relationship with cooperators and peers. He has a positive can-do attitude and is admired by his co-workers and cooperators.” Luke was awarded with a monetary award and, in addition, his name will be added to a plaque on display in the Eastern Regional Office that lists all the previous award winners.
Colorado Avalanche Victim Saved by Former SNR Student

Sam McCloskey, 2009 PRT student and currently with State Forest State Park, recently assisted in saving the life of an avalanche victim on Cameron Pass in northern Colorado. The skier was buried for more than three hours, which as Sam’s partner on the rescue mission and fellow state park ranger Andrew Maddox states about the rescue mission, “We were past three hours...in our minds, this was a body recovery.” “We were talking about this afterwards,” Sam said. “If you are caught in an avalanche, your likelihood of survival without companion rescue is very low. It’s not often that an outside rescue group in a rural area gets in and finds a buried survivor.” In fact, the Denver Post article states that a buried avalanche victim’s chances for survived dwindle to, at best, 4 percent after 36 minutes. After more than 180 minutes, the chances drop to a fraction of 1 percent. Almost six hours after being buried alive, the victim arrived at a nearby hospital and received treatment for his extensive injuries. One week after the accident, he was released from the hospital and back at school.

For the full story (including a video of the story) click here.

Right: Andrew Maddox and Alumni Sam McCloskey

School of Natural Resources Alumni Association

Interested in joining the Natural Resources alumni group? Check out their website by clicking here.

To get connected and stay up to date, head to Facebook and join the SNR Alumni Group by clicking here!
Richard “Dick” Wayne Vaught, 91, of Columbia passed away Saturday, March 30, 2013.  He was born in Fillmore, California, on October 25, 1921. His parents were Leroy and Dorothy Vaught; he is the last remaining child of five siblings.  He graduated from Platte City High School in 1939 and was working for Beech Aircraft in San Diego when he heard Pearl Harbor had been bombed in 1941.  He, with his friends, drove straight back to Platte City and enlisted in the U.S. Navy. He was first stationed in Miami as an aviation machinist mate and flew in PBY airplanes on submarine patrol duty during the war.  After the war, he returned to Missouri and enrolled in the University of Missouri, where he graduated with a bachelor's degree in agriculture, fisheries and wildlife in 1948.  Dick began his career with the Missouri Conservation Commission in September 1948 as a technician in the Federal Aid Cover Restoration Project, where he remained until 1950 when he was transferred to August A. Busch Memorial Conservation Area. A promotion to area manager in 1951 moved Dick to Trimble Wildlife Area, where he supervised initial development and management of Canada goose nesting.  After managing Trimble Wildlife Area, he was promoted to project leader for workflow research in Columbia. He quickly assumed a leadership role in the technical section of the Mississippi Flyway Council and became a recognized authority on the Eastern Prairie population of Canada geese. In recognition of his research and leadership, he was awarded the outstanding achievement award - one of only three ever given to that date - and later received the Missouri Chapter of the Wildlife Society's E. Syndey Stephens Professional Award.  Dick was married to his wife, Jeryl Dean Vaught for 70 years. She resides at Columbia Manor. He is survived by his children, Valerie Kent Brown, Julie Patterson Horton, and David Richard Vaught and wife Dawn Lea; and four grandchildren.

Wayne Leory Decker passed away Tuesday, March 19, 2013 at the age of 91. He was born January 24, 1922 in Madison County, Iowa, the youngest of six children of Albert Henry and Effie Prudence (Holmes) Decker. He was educated in Madison County public schools, earned a bachelor's degree at Central College in Pella, Iowa, and received both his master's degree and Ph.D. at Iowa State University in soil physics. He married the former Martha Jan Livingston from Monrow, Iowa, on December 29, 1943, at Westwood Methodist Church in Los Angeles. To this union was born one daughter, Susan Jane Decker, on February 20, 1952. Wayne served on active duty in the U.S. Navy from 1943 to 1946. He was trained in meteorology at UCLA and went on to spend time on Johnson Island during the war. He was released from active duty with the rank of lieutenant. After the war, he served as a climatologist with the U.S. Weather Bureau. In 1949, he became a professor of atmospheric science at the University of Missouri. He served as chairman of the Atmospheric Science Department for 10 years. He retired as professor emeritus in 1992. He was a member of Golden K Kiwanis Club of Columbia, First Presbyterian Church in Columbia, the American Meteorological Society, the American Geophysical Union and the American Agronomy Society. Wayne is survived by his sister, Laura Irene (Decker) McEwen of Des Moines, Iowa; and by his grandson, Aidan John McNarie of Hilo, Hawaii. Also surviving are numerous nieces and nephews in Missouri, Iowa, Ohio, Oklahoma, Texas and Kansas. Wayne was preceded in death by his daughter, Susan, on March 2, 2010, and by his wife of 69 years on December 29, 2011.

From Columbia Daily Tribune, see full obituary here.
In response to student interest in exotic animals and exotic animal care, in 2007 a minor in Captive Wild Animal Management was initiated at Mizzou as a joint effort between the Department of Fishers and Wildlife Sciences and the Division of Animal Sciences. The curriculum was structured around existing courses, taking advantage of academic strengths in the two primary disciplines and designed with input from national leaders in the captive wild animal industry. Students complete common core courses, and choose advanced courses that best match their professional goals. As part of this program, two new courses (an introductory course and a senior seminar) and a required internship experience were developed. The introductory course relies heavily on guest speakers who are experts in the field, and allows students to have a deeper insight into how wild animals are managed in zoos, aquariums, conservation facilities, etc.

Student interest in the minor has been high. At any given time, roughly 140 students state they are pursuing the minor, representing 17-20% of the total undergraduates in each discipline. With regard to the required internship, students have interned at locations in 12 states: Alaska, California, Colorado, Florida, Kansas, Minnesota, Missouri, Nebraska, Oklahoma, Oregon, Tennessee, and Texas. They have worked alongside zookeepers, zoo educators, zoo veterinarians, animal trainers, wildlife rehabilitators, conservation agents, field biologists, graduate students, etc. The students have varied career interests which include, but are not limited to, zoo keeping, field work, endangered species conservation, advanced research, veterinary medicine, wildlife rehabilitation, and production agriculture. To date, 65 students have graduated with the minor. Within a year of graduation, the students have been professionally active as follows: wild animal position, n=18; graduate school, n=11; domestic animal care, n=4; research assistant, n=3; vet school, n=3; other/unknown, n=26.

This minor furthers student knowledge in whole animal biology, encourages students to integrate information across disciplines, and broadens skills for future employment in animal related careers. The required internship allows students to gain practical experience and valuable professional skills. These students pursue a scientific major, and a scientific minor, and are well prepared to make important contributions to future animal care and management decisions or add scientific knowledge to our understanding of the animal kingdom.

Above: Michelle Walker interning at the Minnesota Zoo.
Above right & bottom right: Ben Grooms interning at Wildlife Safari in Winston, Oregon.
Tanya Anderson joins PRT Team!

Tanya Anderson is the new Administrative Assistant in the Parks, Recreation and Tourism department. Tanya is excited to be a part of the SNR family and is happy to answer any questions you may have! Be sure to stop by 105 to say hello!

NEWS FROM THE ACADEMIC PROGRAMS OFFICE
By: Dr. Rose-Marie Muzika

Enrollment:
The academic year 2012-2013 found the School of Natural Resources with an impressive increase in enrollment, outpacing all other academic units at the University of Missouri. The fall 2012 enrollment in the school was 885 undergraduates, an increase of 184 students when compared with 2011. Every Department in the school - Fishers & Wildlife (FW), Forestry (FOR), Parks, Recreation & Tourism (PRT), Soil, Environmental & Atmospheric Sciences (SEAS) - increased enrollment from 2011-2012, with the great increase in PRT and SEAS.

Study Abroad:
During the 2011 calendar year, 24 SNR students participated in study abroad activities including programs in Italy, Australia, Thailand, western Canada, South Africa and New Zealand. In 2012, 18 SNR students participated in trips to Thailand, Costa Rica, South Africa and the UK. Other “off campus” experiences in 2012 included a course in Rocky Mountain Field Ecology with FOR and SEAS students and faculty from Forestry and Geography.

Curriculum News:
The Department of Soil, Environmental and Atmospheric Sciences has created a new curricular track within its degree program. The Hydrology Track focuses on the movement, distribution and management of water in all its phases (gas, liquid, solid) in atmospheric, surface and groundwater flow, as well as biological uses (e.g. plant water use, etc.). There is often a need for interdisciplinary analysis and planning that brings together hydrologists, plant ecologist, foresters, soil scientists, and/or geomorphologist and specialists in urban design. Given the breadth of professional directions our students may pursue, students can navigate the Hydrology Track in Environmental Science meeting Federal Requirement (e.g. professional interests (e.g. watershed and forest ecosystem management)). By design, the Track offers students the opportunity to gain an appreciation for interdisciplinary hydrology that is often necessary to solve contemporary water resource problems.
Do You Have What It Takes?

...to be the Trivia in the Wild Champion? That is the question that many teams asked themselves on the evening of March 8th as they streamed into the extension building at Bradford Farms, carrying enough food and beverages to sustain themselves and their teammates for a fun-filled night of trivia. This year, for the fourth annual Trivia in the Wild Challenge, the Bradford extension building was almost bursting at the seems with the twenty-three teams (approximately eight people per team) that signed up to participate in the evening events. Before the games began, participants had the opportunity to put tickets in for over 50 raffle prizes that the Natural Resources Alumni Association Trivia Committee (headed by the exuberant foursome Laura Hertel, Jenna Fusinatto, Katie Lohe and Katey Twehous) got donated from various organizations and businesses in Missouri. Raffle items ranged from spa packages and local restaurant gift cards to Cardinal tickets and a Columbia “Date” Package.

Around 7:00PM, teams started to settle at their tables so the Master of Ceremonies, KRCG Jefferson City Chief Meteorologist Zach Paul, could explain the rules of the game and begin the rounds of trivia. This year, there were eight rounds ranging in topics from “Dog Breeds” and “Hodgepodge” to the annual favorite, “Dead Celebrities.” Between every two rounds, raffle tickets were drawn for people to win the items that they put tickets in for. There was disappointment from some as they saw their favorite raffle item walk away with another person, but, by the end of the games, no one seemed to remember. The last trivia round, “Name That Song,” required trivia teams to read a few sentences of lyrics and then determine what the song was called. The round was difficult, but it allowed many people to reminisce about their favorite 70’s and 80’s music once the answers were read, or, rather, sung. At one point Zach may have even rapped the lyrics to a modern rap song and belted out the lyrics to a Miranda Lambert song.

After the mini karaoke session, the first place and second place winning teams were announced. The second place prize of $200 was awarded to the SNR Undergraduate Office of Academic Programs team (Rose-Marie Muzika, Laura Conners, Kevin Hosman, Emma Hosman, Bailey Yotter, Christine Steinwand, Pattie Quackenbush, and Nathan Weber) and the first place prize of $400, winning team visors and an awesome trophy was awarded to the Business Office team (Anita Carter, Nicki Carter, Drew Backues, Chris James, Jenna Fusinatto and Christine Tew). Overall, fun was had by all who attended. All proceeds from the evening went to the Natural Resources Alumni Association Scholarship Fund to provide scholarships for undergraduate students in the School of Natural Resources. A big thank you to Zach Paul for being a wonderful Master of Ceremonies; to Laura Hertel for composing the awesome trivia questions; Jenna, Katie and Katey for planning the entire event; Bradford Farms for providing the extension center; School of Natural Resources Student Ambassadors for assisting with set-up and judging; the Natural Resources Alumni Association for hosting the event; and all who attended the 2013 Trivia in the Wild Challenge. We thank you for your support and look forward to seeing you next year at the Fifth Annual Trivia in the Wild! M-I-Z-Z-O-U!

By: Ashley N. Schulz

Winning team pictured below

Above photo courtesy of Jenna Fusinatto above photo courtesy of Anita Carter