



## Awards and Recognitions



Associate Professor **Dr. Lee Hughes** was honored with the Distinguished Teaching Professor award at the Salute to Faculty Excellence 2016 reception. This award recognizes tenured faculty who perform outstanding teaching, instruct at the introductory levels of their disciplines, and promote continuous development of teaching excellence and improvement among their colleagues in the UNT community. Dr. Hughes expertise is in microbiology and biology education. He has a particular interest in involving undergraduate students in research experiences. He has implemented or created several undergraduate research course experiences in order to expand these opportunities to more students. Through his work in biology education, he has been recognized as an American Society for Microbiology (ASM) Distinguished Lecturer and has been elected chair of the ASM Microbiology Education Division.

Congratulations to Associate Professor **Dr. Jeff Johnson** on his election as an Elective Member of the American Ornithologists' Union (AOU). Elective Members are nominated based on their significant contributions to ornithology and/or service to the AOU.



Dr. Jeff Johnson

## Promotion and Tenure



Dr. David Hoeinghaus

**Dr. David Hoeinghaus** was promoted to Associate Professor with tenure. Dr. Hoeinghaus's research is broadly focused on aquatic community and ecosystem dynamics in response to environmental change. Examples of current research topics include modeling recruitment in response to floodplain inundation dynamics, effects of biofuels expansion on stream ecosystems, responses of fish diversity to deforestation in the Amazon, host-specificity of threatened mussels, and controls of stream ecosystem metabolism. Most of his research employs a combination of long-term field studies and mechanistic experiments, with ecosystem types ranging from intermittent streams to large floodplain rivers to estuaries, including high biodiversity tropical ecosystems in Brazil. He serves as Associate Editor for three international journals, and teaches upper-level courses on Community Ecology, Fish Diversity and Ecology, and Freshwater Ecosystems.

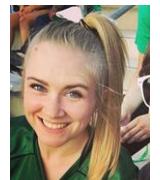
## Other News



Amith Reddy

**Amith Reddy**, graduate student in Dr. Ron Mittler's group, was selected to serve as a Senator representing the Department of Biological Science at the Graduate Student Council. Senators provide an official channel of communication between the Graduate Student Council and the department. They represent graduate students in their academic department by communicating issues relevant to and advocating for fellow graduate students. They work toward generating solutions for issues important to the graduate student community.

**Lizzy McClinchie** from Regent's Professor Dr. Kent Chapman's lab received a UNT Graduate Student Support Grant to attend the Plant Biology 2016 Conference. **Dr. Mina Aziz** also received a travel award to attend the meeting.



Lizzy McClinchie

## Thesis and Dissertations

**Sarah K.G. Sirsat** successfully defended her PhD in June and graduated in August. Dissertation Title: *Maturation of endothermic capacity within the avian developmental spectrum: A characterization of thermoregulatory metamorphosis*. Associate Professor Dr. Ed Dzialowski was her advisor. Sarah has accepted a tenure-track Assistant Professorship in the Biology Department at the State University of New York, Potsdam.



Dr. Sarah K.G. Sirsat

## New Graduate Students, Faculty and Staff Appointments & Retirements

The Department of Biological Sciences welcomes the incoming 2016 cohort of graduate students. This incoming class includes students from across the world: Ifeanyi Ahmadi, Fatemah Al Malki, James Boyett, Thompson Caitlin, Corley Chase, Lindsey Daniel, Tiffany Doakes, Amy, Eddins, John Evers, Denice Gallagher, James Hpgood, Brittany Harried, Mohamad Ibrahim, Maegden Lindsey, Yen-Tung Ling, Paul Luyster, Jindanuch Mankeekul, Chipoo Mungwira, Danielle Mulhern, Rasika Mungad, Ryan Murray, Kari Northeim, Wendy Pace, Danielle Phillippi, Divya Premraj, Amanda Reynolds, Jessica Rippamonti, Jose Robledo, Jenika Sanchez, Amy Scott, Ashley Scott, James Smith, Bethany Stuck, Nikita Suri, Nicholas Tran, Dua Quedan, Sara Wilmsen and Anastasia Wilson.



Dr. Jim Bednarz

The Department of Biological Sciences welcomes to our new staff members and postdoctoral scholars Dr. Jim Bednarz, Dr. Hyunju Kim, Dr. Ashley Cannon, Shirl (Shirley) Gulley, and Rueben Alvarado. **Dr. Jim Bednarz** joined the department as Lecturer/advisor. Dr. Bednarz received his undergraduate degree in Fisheries and Wildlife Biology from New Mexico State University. He completed a M.S. degree in Animal Ecology at Iowa State University and his Ph.D. degree in Biology at the University of New Mexico. Over the last three decades Dr. Bednarz has conducted research on avian population ecology and conservation. Although most of this work has been focused on birds of prey and Neotropical migratory songbirds, he has conducted research on shorebirds, colonial waterbirds, waterfowl, woodpeckers, quail, and wild turkeys. Previously, Dr. Bednarz served as the Director of the Wildlife Ecology and Management Program at Arkansas State University. At UNT, he will serve as a Lecturer and undergraduate advisor. He currently teaches Conservation Biology and Environmental Science for non-majors. In the future, he will teach both introductory courses in Biology and courses in Ecology.



Dr. Hyunju Kim

**Dr. Hyunju Kim** joined the department as a Lecturer/Advisor. Dr. Kim received her Ph.D. degree from the University of North Texas. In addition to teaching undergraduate Microbiology and Medical Bacteriology, Dr. Kim also serves as an advisor to undergraduate Biology majors.



Rueben Alvarado

**Shirl (Shirley) Gulley** joined the department as Administrative Specialist III. She will assist faculty, students and staff as a Travel Coordinator, with conference room scheduling. In addition, she will be the department's webmaster. Shirl is a Texas Woman University graduate who previously worked in Customer Care at Carter BloodCare providing administrative support for special events and travel coordination. She also has 12 years of experience as an administrative assistant in the radio industry.



Shirl Gulley

**Rueben Alvarado** joined the department as Research Analyst I. He will assist faculty in the Plant Signaling Cluster and BioDiscovery Institute with grant accounts. Rueben is a UNT graduate with a BS degree in Emergency Administration & Planning. Prior to joining the department, Ruben worked in Student Accounting & University Cashiering Services as a Hazlewood Specialist, and in the Teacher Education & Administration Department as a Program Assistant and Administrative Coordinator I.



Dr. Ashley Cannon

**Dr. Ashley Cannon** joined Dr. Kent Chapman's lab as a postdoctoral fellow in early September. She completed her Ph.D. at the University of Texas at Austin under Dr. Stan Roux.



Dr. Lon Turnbull

**Dr. Lon Turnbull** retired after 14 years of service to the department and UNT. His most recent appointment in the department was as confocal and SEM microscopist. His responsibilities included maintaining the confocal and SEM microscopes, defining the need for and acquiring new equipment and software, training faculty and students on the use of these microscopes and helping them acquire data for a variety of experimental setups. Best wishes to Dr. Turnbull on this new chapter in his life.

## Recent Publications

Bateson, Z.W., Hammerly, S.C., Johnson, J.A., Morrow, M.E., Whittingham, L.A., and Dunn, P.O. (2016) Specific alleles at immune genes, rather than genome-wide heterozygosity, are related to immunity and survival in the critically endangered Attwater's Prairie-chicken. *Molecular Ecology* doi: 10.1111/mec.13793 <http://onlinelibrary.wiley.com/doi/10.1111/mec.13793/abstract>

Contador, T.A., Kennedy, J.H. (2016) The life histories of *Meridialaris chiloeensis* (Demoulin) (Ephemeroptera: Leptophlebiidae) and *Gigantodax rufescens* (Diptera: Simuliidae) on a Magallenic sub-Antarctic island (55°S). *Aquatic Insects – An International Journal Freshwater Entomology*. 37(2): 145-158.

Driver, L.J., and Hoenighaus, D.J. (2016) Spatiotemporal dynamics of intermittent stream fish metacommunities in response to prolonged drought and re-connectivity. *Marine and Freshwater Research*. DOI: 10.1071/MF15072 <http://www.publish.csiro.au/mf/MF15072>

Jiménez, J.E., Jahn, A.E., Rozzi R., and N.E. Seavy. (2016) First documented migration of individual White-crested Elaenias (*Elaenia albiceps chilensis*) in South America. *Wilson Journal of Ornithology* 128:413-419.

Johnson, J.A., Brown, J.W., Fuchs, J., and Mindell, D.P. (2016) Multi-locus phylogenetic inference among New World Vultures (Aves: Cathartidae). *Molecular Phylogenetics and Evolution* (in press) <http://www.sciencedirect.com/science/article/pii/S105579031630224X>

Montgomery, C. L., Keereetaweeep, J., Johnson, H. M., Grillo, S. L., Chapman, K. D., and Koulen, P. (2016) Changes in retinal N-acylethanolamines and their oxylipin derivatives during the development of visual impairment in a mouse model for glaucoma. *Lipids* 51(7):857-866. doi: 10.1007/s11745-016-4161-x

Moreira-Arce, D., Carrasco, G., Vergara, P.M., Boutin, S., Briones, R., Soto, G.E. and Jiménez, J.E. 2016. Mesocarnivores respond to fine-grain habitat structure in a mosaic landscape comprised by commercial forest plantations in Southern Chile. *Forest Ecology and Management* 369:135-143.

Perry, H.A. and Kennedy, J.H. (2016) The life history and contributions to the ecology of *Camelobaetidius variabilis* (Ephemeroptera: Baetidae) from Honey Creek, Oklahoma. *Annals of the Entomological Society of America*. 109 (5): 744-752.

Price, E. R., Sirsat, T. S., Sirsat, S. K., Kang, G., Keereetaweeep, J., Aziz, M., & Dzialowski, E. M. (2016) Thermal acclimation in American alligators: Effects of temperature regime on growth rate, mitochondrial function, and membrane composition. *Journal of Thermal Biology*. <http://dx.doi.org/10.1016/j.jtherbio.2016.06.016>

Rendoll Cárcamo, J., Contador, T., Crego, R.D., Jordán, N.I., Schüttler, E., Gañán, M., Jiménez, J.E., Rozzi, R., Massardo, F., and Kennedy, J.H. (2016) First record of *Vespa vulgaris* (Linnaeus 1758) (Hymenoptera: Vespidae) on Navarino Island, Chile. *Gayana (Chile)* 80:133-136.

Ribolli, J., Hoenighaus, D.J., Johnson, J.A., Zaniboni-Filho, E., Freitas, P.D., and Galetti Jr., P.M. (2016) Isolation-by-time population structure in potamodromous Dourado *Salminus brasiliensis* in southern Brazil. *Conservation Genetics*. DOI: 10.1007/s10592-016-0882-x <http://link.springer.com/article/10.1007/s10592-016-0882-x>

Schad, A.N. Kennedy, J.H. and Dick, G.O. (2016) Secondary production and seasonal development of epiphytic *Enallagma civile* Hagen, 1861 (Odonata: Coenagrionidae) in a newly constructed urban wetland floodway ecosystem. *Aquatic Insects – An International Journal Freshwater Entomology*. 37(2): 159-173.

Sirsat, S.K.G., Sirsat, T.S., Sotherland, P.R., and Dzialowski, E.M. (2016) The 12-day thermoregulatory metamorphosis of Red-winged Blackbirds (*Agelaius phoeniceus*). *Journal of Comparative Physiology B*. 186: 651-663. doi: 10.1007/s00360-016-0978-0.

## Editorial

Gordon, I.J., Altwegg, R., Evans, D.M., Ewen, J.G., Johnson, J.A., Pettorelli, N., and Young, J.K. (2016) Reducing agricultural loss and food waste: how will nature fare? *Animal Conservation* 19:305-308. <http://onlinelibrary.wiley.com/doi/10.1111/acv.12290/abstract>

## Extramural Grants and Contracts

Dípteros en regiones sub-Antárticas y Antárticas: ¿están listos para los cambios? (*Dipterans in sub-Antarctic and Antarctic regions: are they ready for the changes?*) Instituto Antártico Chileno (INACH), PI: Tamara Contador (University of Magallanes), Co-PIs: James Kennedy (UNT), Peter Convey (British Antarctic Institute), \$77,100

Elucidating the Cellular Machinery for Lipid Storage in Plants. US Dept of Energy, Office of Science, Basic Energy Sciences. PI-Kent Chapman; CoPIs Robert Mullen (University of Guelph) and John Dyer (USDA), \$650,000.

The effect of post-exercise alcohol consumption on resistance exercise-induced mTOR pathway signaling and protein synthesis. Graduate Research Grant (Doctoral), National Strength and Conditioning Association. SI: Danielle Levitt, PI: Jakob Vingren, \$15,000.

## Seminars/Talks

*Biosynthesis of proanthocyanidin in Medicago: Aiming at promoting proanthocyanidin in alfalfa*. Beijing Forestry University, Beijing, China. August 2016. Invited talk by Chenggang Liu.

*Compartmentalization of lipid metabolites in oilseed tissues*. Innovations in Crop Improvement to Meet the Global Grand Challenges of the 21st Century, Huazhong Agricultural University, Wuhan, China, September 2016; Kent Chapman, Invited Symposium Speaker. Co-authors, Drew Sturtevant, Patrick Horn.

*Development of avian temperature regulation: thyroid hormones and mitochondria*. BioFrontiers- The Biological Sciences Seminar Series, University of North Texas, Denton, TX. September 2016. Oral presentation by Dr. Ed Dzialowski.

*Heath Hen de-extinction: prospects and considerations based on whole genome analysis*. North American Ornithological Conference, Washington DC, August 2016. Oral presentation by Dr. Jeff Johnson. Co-authors: G. Athrey, R. Adams, T. Castoe, and B. Novak.

*How to Best Detect *Campephilus Woodpeckers* at the southern end of the Americas*. North American Ornithological Conference, Washington, DC, August 2016. Oral presentation by A.L. Wynia. Co-authors: J.E. Jiménez & R. Rozzi.

*Identifying targets for engineering lipid droplet accumulation in plant tissues*. Federation of the American Societies for Experimental Biology (FASEB) Summer Research Conference, Lipid Droplets, Snowmass, CO, July 2016; Kent Chapman, Invited symposium speaker. Co-authors, Yingqi Cai, Satinder K. Gidda, Olga Yurchenko, Michael Pyc, Robert T. Mullen, John M. Dyer.

*Interpreting genomes and transcriptomes using bioinformatics approaches.* BioFrontiers- The Biological Sciences Seminar Series, University of North Texas, Denton, TX. September 2016. Oral presentation by Dr. Rajeev Azad.

*Nesting strategies of forest birds and the impact of a novel invasive predator in the world's southernmost forest.* North American Ornithological Conference, Washington, D.C., August 2016. Oral presentation by R.F. Jara. Co-authors: R.D. Crego, J.W. Williams, F.J. Arellano, R. Rozzi and J.E. Jiménez.

*New pathways to lignin and condensed tannins?* Beijing Forestry University, Beijing, China. August 2016. Invited talk by Richard Dixon.

*New pathways to old compounds; reassessing the biosynthesis of lignin and condensed tannins.* Yangzhou University, Yangzhou, China August 2016. Invited talk by Richard Dixon.

*New perspectives on phenylpropanoid biosynthesis.* Haixia Institute of Science and Technology Symposium on Small Molecules in Plants. Fujian Agriculture and Forestry University (FAFU), Fuzhou, China. August 2016. Invited talk by Richard Dixon.

*Phylogenomics of the Heath Hen and its possible de-extinction.* Department of Ecology and Genetics, Uppsala University. September 2016. Invited seminar by Dr. Jeff Johnson.

*Plant-pest interaction: A tug-o-war for supremacy.* Department of Biology, McMaster University, Canada, July 2016. Invited Talk by Dr. Jyoti Shah.

*Regulation of plant defense against the polyphagous green peach aphid.* International Congress of Entomology, Orlando, FL, September 2016. Invited talk by Dr. Jyoti Shah. Co-authors: Hossain A. Mondal, Joe Louis, Monika Patel, Lani Archer, Sumita Behera, Sujon Sarowar, Vamsi J. Nalam, and Douglas D. Root.

*Research in the world's southernmost forest.* BioFrontiers- The Biological Sciences Seminar Series, University of North Texas, Denton, TX. September 2016. Oral presentation by Dr. Jamie Jiménez.

*Role of bifunctional ammonia-lyase in grass cell wall biosynthesis.* Workshop at Plant Biology 2016, American Society of Plant Biologists Meeting, Austin, TX. July 2016. Invited talk by Jaime Barros-Rios.

*Structural insights into Arabidopsis fatty acid amide hydrolase.* 22nd International Symposium on Plant Lipids, Goettingen Germany, July 5, 2016; Kent Chapman, Invited talk. Co-authors, Mina Aziz, Lionel Faure, and Xiaoqiang Wang.

*Structural insights into the biochemical properties of Arabidopsis fatty acid amide hydrolase.* Phytochemical Society of North America, Davis CA, August 2016; Kent Chapman, invited talk—Co-authors, Mina Aziz, Lionel Faure, and Xiaoqiang Wang.

*The Academies report on genetically engineered crops: experience and prospects.* Workshop at Plant Biology 2016, American Society of Plant Biologists Meeting, Austin, TX. July 2016. Invited talk by Richard Dixon. Co-presented with Prof Neal Stewart.

*The phloem network as a whole-plant integrator of developmental signals and nutrient homeostasis* BioFrontiers- The Biological Sciences Seminar Series, University of North Texas, Denton, TX. September 2016. Oral presentation by Dr. Brian Ayre.

*Timing of isolation of the Jackson Hole, Wyoming Greater Sage-grouse population.* North American Ornithological Conference, August 2016, Washington DC. Oral presentation by Sarah Schulwitz (PhD student). Co-authors: B. Bedrosian, S. Oyler-McCance, and J.A. Johnson

*Using probiotics to grow safe, sustainable seafood.* Chicago Seafood Show. Chicago Navy Pier, Chicago, Illinois. September 2016. Invited keynote talk by Dr. Ione Hunt von Herbing.

*What genes are important to immunity and survival in the endangered Attwater's Prairie-chicken?* North American Ornithological Conference, Washington DC, August 2016. Oral presentation by Peter Dunn. Co-authors: Z. Bateson, S. Hammerly, J.A. Johnson, M. Morrow and L. Whittingham.

## Conference Presentations

Ayre, B.G., Gaxiola, R., Yadav, U., and Shaikh, M.A. *Comparing two approaches to enhance phloem loading and long-distance transport: Is a holistic approach required to increase productivity?* Plant Biology 2016, The Annual Meeting of the American Society of Plant Biologists, Austin, TX. July 2016

Aziz, M., Wang, X., Faure, L., and Chapman, K.D. *Insights into the structure and function of Arabidopsis fatty acid amide hydrolase (FAAH).* Plant Biology 2016. American Society of Plant Biologists annual meeting, Austin, TX. July 9-13, 2016.

Barros-Rios, J., Serrani-Yarce, J.C., Chen, F., Baxter, D., Venables, B.J. and Dixon, R.A. *Role of bifunctional ammonia-lyase in grass cell wall biosynthesis.* Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.

Behling, E., T.E. Caviness, L.R. Lewis, B. Goffinet, R. Rozzi and J.E. Jiménez. *Do birds consume and disperse bryophytes?* Botany 2016 Conference, Savannah, Georgia. July-August 2016

Brejão, G.L., Hoenighaus, D.J., Casatti, L., Pérez-Mayorga, M.A., and Ferraz, S.F.B. *Threshold responses of Amazonian stream fish diversity to deforestation.* Ecological Society of America Annual Meeting, Ft. Lauderdale, Florida. August 2016.

- Cai Y., Mullen R.T., Dyer J.M. and Chapman K.D. (2016) Roles of Arabidopsis SEIPIN proteins in the regulation of lipid droplet abundance and size in plant cells. Plant Biology 2016. American Society of Plant Biologists annual meeting, Austin, TX. July 2016.
- Chen, F. and Yang, B. High lignin content increase total energy and carbon sequestration of plant biomass. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Chowdhury, Z., Giri, M., Chaturvedi, R., Venables, B.J., and Shah, J. *Dehydroabietinal, an abietane diterpenoid, activates the autonomous pathway to impact flowering time and defense in Arabidopsis thaliana*. XVII Congress of the International Society of Molecular Plant-Microbe Interactions, Portland, OR. July 2016.
- Dodds, W.K., Wollheim, W., Argerich, A., Baker, C., Ballantyne, F., Bowden, B., Evans-White, M., Farrell, K., Flinn, M., Frenette, B., Erica, G., Guinnip, J., Harms, T., Hedden, S., Higgs, S., Hoeinghaus, D.J., Jones, J., Koenig, L., Kominoski, J.S., Larson, D., Lehrter, R., Mapes, R., McDowell, W., McMaster, D., Parker, S., Penaluna, B., Rosemond, A., Ruegg, J., Scott, J., Sheehan, K., Siders, A., Song, C., Spangler, M., Taylor, R., Trentman, M., and Whiles, M. (2016) *Implications of spatial heterogeneity for scaling lotic metabolism*. Society for Freshwater Science Annual Meeting, Sacramento, California.
- Escamilla-Trevino, L.L., Barros-Rios, J. and Dixon R.A. *Unraveling pathway diversity for monolignol biosynthesis in plants*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Gallego-Giraldo, L., Poce-Albacete, S., Knox, P. and Dixon, R.A. *Understanding plant cell wall signals through lignin modification and its relation to plant defense responses*. 10<sup>th</sup> Georgia Glycoscience symposium and 2016 Plant Polysaccharide Workshop. Athens, Georgia. July 2016.
- Giri, M.K., Chaturvedi, R., Chowdhury, Z., Petros, R., Venables, B.J., and Shah, J. *Involvement of an Arabidopsis thaliana P450 monooxygenase related to a pine abietadiene oxidase in plant development and defense*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Giri, M., Chaturvedi, R., Chowdhury, Z., Petros, R., Venables, B.J., and Shah, J. *A P450 monooxygenase homologue of Pinus taeda in Arabidopsis involves in the regulation of defense and development in plants*. XVII Congress of the International Society of Molecular Plant-Microbe Interactions, Portland, OR. July 2016.
- Harkleroad, A., Chen, F., Rao, X., Nar, M., D'Souza, N. and Dixon, R.A. *C-lignin: A linear lignin polymer*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Hunt von Herbing, I. K. Deming, & M. S. Allen. *The role of microorganisms in creating digestive and environmental health in the face of global change*. 2016 Probiotics and Microbiome Congress, San Diego, CA
- McClinchie, E.A., Cai, Y., Price, A.M., Mullen, R.T., Dyer, J.M., and Chapman, K.D. *Expression of Mus musculus fat-storage inducing transmembrane protein 2 (FIT2) in Nicotiana benthamiana and Arabidopsis thaliana promotes lipid droplet accumulation*. Plant Biology 2016. American Society of Plant Biologists annual meeting, Austin, TX. July 2016.
- Lu, N., Roldan, M. and Dixon, R.A. *Identification and Characterization of two TT2-like MYBs from tetraploid cotton, Gossypium hirsutum*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Petranova, D., and Dixon, R.A. *Function and kinetics of hydroxycinnamoyl CoA: shikimate hydroxycinnamoyl transferase in Brachypodium distachyon*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Prewitt, S., McGarry, R.M., and Ayre, B.G. *Functional and phylogenetic analysis of the Gossypium hirsutum CETS gene family*. Plant Biology 2016, The Annual Meeting of the American Society of Plant Biologists, Austin, TX, July 2016.
- Rao, X., Chen, X., Shen, H., Ma, Q., Xu, Y. and Dixon, R.A. *Co-expression analysis to identify transcriptional networks that regulate secondary cell wall formation in switchgrass*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.
- Rozzi, R., J.W. Williams, T. Kono, A. Paredes-Castellanos, V. Castro, J.E. Jiménez, F. Massardo & O. Barroso. *Long-term ornithological research and environmental ethics at the Omora Ethnobotanical Park, Chile*. Annual meeting the Ecological Society of America, Fort Lauderdale, Florida. August 2016.
- Shaikh, M., Agarwal, S., and Ayre, B.G. *Understanding the crosstalk between carbohydrate transport and phosphate use in plants with enhanced phloem partitioning from source to sink*. Plant Biology 2016, The Annual Meeting of the American Society of Plant Biologists, Austin, TX. July 2016
- Sturtevant, D., Dueñas, M.E., Lee, Y.-J. and Chapman, K.D. *Two and three-dimensional visualization of membrane phospholipid heterogeneity in Arabidopsis thaliana seeds by MALDI-MS imaging*. Plant Biology 2016. American Society of Plant Biologists annual meeting, Austin, TX. July 2016.
- Williams, J.W., R. Rozzi, F. Massardo, R. Jara and J.E. Jiménez. *Using field environmental philosophy to bring ornithology, ethics, and conservation together*. Presented at the North American Ornithological Conference, Washington, D.C., August 2016
- Wu, J., Gallego-Giraldo, L., and Dixon, R.A. *WRKY and NST2 transcription factors involved in regulation of XTHs expression and secondary cell wall biosynthesis in Arabidopsis*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.

Yan, C. Keereetawee J. Khan, B. Azad, R. Jones, A. Blancaflor, E. and Chapman K. *Transcriptional profiling provides new insights into the regulation of Arabidopsis thaliana seedling development by N-linolenylethanolamine (NAE 18:3)*. Plant Biology 2016. American Society of Plant Biologists annual meeting, Austin, TX. July 2016.

Zeni, J.O., Hoeinghaus, D.J., and Casatti, L. (2016) *Taxonomic and functional dynamics of fish assemblages of agricultural streams are not correlated with changes in instream habitat or watershed land-use*. Ecological Society of America Annual Meeting, Ft. Lauderdale, Florida. August 2016.

Zhuo, C., Chen, F., Lu, N., Rao, X., Xiao, X. and Dixon, R.A. *Modulation of caffeoyl-CoA 3-O-methyltransferases in relation to lignin biosynthesis in the seed coats of Cleome hassleriana*. Plant Biology 2016, American Society of Plant Biologists Annual Meeting, Austin, TX. July 2016.

BIOSphere is a quarterly newsletter of the Department of Biological Sciences, University of North Texas

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