

CURRICULUM VITAE

NAME

John K McKay

ADDRESS

Bioagricultural Sciences and Pest Management
College of Agricultural Sciences

PHONE

(970) 491-5730

EDUCATION

2001 Ph D, University of Montana

1995 BS, SUNY Albany

ACADEMIC POSITIONS

2018-2019 - Associate Professor (College of Agricultural Sciences)

SABBATICALS

(2013) Wenner-Gren Sweden, One year sabbatical at Uppsala University.

OTHER POSITIONS

2012 - Present Visiting Professor, Evolutionary Biology Center, Uppsala University, United States.

2011 - Present Associate Professor, BSPM, Colorado State University, Fort Collins, CO, United States.

PUBLISHED WORKS

Refereed Journal Articles

Monroe, G. G., Allen, Z. A., Tanger, P., Mullen, J. L., Lovell, J. T., Moyers, B. T., Whitley, D., McKay, J. K. (2017). TSPmap, a tool making use of traveling salesperson problem solvers in the efficient and accurate construction of high-density genetic linkage maps. *BioData mining*, 10(1), 38., Peer Reviewed/Refereed

Tanger, P., Klassen, S., Mojica, J. P., Lovell, J. T., Moyers, B. T., Baraoidan, M., Naredo, M. E., McNally, K. L., Poland, J., Bush, D. R., Leung, H., Leach, J. E., McKay, J. K. (2017). Field-based high throughput phenotyping rapidly identifies genomic regions controlling yield components in rice. *Scientific Reports*, 7, 42839., Peer Reviewed/Refereed

Becker, S. R., Byrne, P. F., Reid, S. D., Bauerle, B. L., McKay, J. K., Haley, S. D. (2016). Root traits contributing to drought tolerance of synthetic hexaploid wheat in a greenhouse study. *Euphytica*, 207(1), 213-224., Peer Reviewed/Refereed

Tanger, P., Vega-Sánchez, M. E., Fleming, M. B., Tran, K., Singh, S., Abrahamson, J. B., Jahn, C. E., Santoro, N., Naredo, E. B., Baraoidan, M., Danku, J. M.C., Salt, D. E., McNally, K. L., Simmons, B. A., Ronald, P. C., Leung, H., Bush, D. R., McKay, J. K., Leach, J. E. (2015). Cell Wall Composition and Bioenergy Potential of

Rice Straw Tissues Are Influenced by Environment, Tissue Type, and Genotype. *BioEnergy Research*, 1-18., Peer Reviewed/Refereed

Reuning, G. A., Bauerle, B. L., Mullen, J. L., McKay, J. K. (2015). Combining quantitative trait loci analysis with physiological models to predict genotype-specific transpiration rates. *Plant, cell & environment*, 38(4), 710-717., Peer Reviewed/Refereed

Lovell, J. T., McKay, J. K. (2015). Ecological genetics of range size variation in *Boechera* spp.(Brassicaceae). *Ecology and evolution*, 5(21), 4962-4975., Peer Reviewed/Refereed

Lovell, J. T., McKay, J. K. (2015). Ecological genetics of range size variation in *Boechera* spp. (Brassicaceae). *Ecology and evolution*, 5(21), 4962-75., Peer Reviewed/Refereed

Lovell, J. T., Mullen, J. L., Lowry, D. B., Awole, K., Richards, J. H., Sen, S., Verslues, P. E., Juenger, T. E., McKay, J. K. (2015). Exploiting Differential Gene Expression and Epistasis to Discover Candidate Genes for Drought-Associated QTLs in *Arabidopsis thaliana*. *The Plant cell*, 27(4), 969-83., Peer Reviewed/Refereed

Easlon, H. M., Carlisle, E., McKay, J. K., Bloom, A. J. (2015). Does low stomatal conductance or photosynthetic capacity enhance growth at elevated CO₂ in *Arabidopsis*? *Plant physiology*, 167(3), 793-9., Peer Reviewed/Refereed

Shafer, A. B., Wolf, J. B., Alves, P. C., Bergström, L., Bruford, M. W., Brännström, I., Colling, G., Dalén, L., De Meester, L., Ekblom, R., Fawcett, K. D., Fior, S., Hajibabaei, M., Hill, J. A., Hoesel, A. R., Höglund, J., Jensen, E. L., Krause, J., Kristensen, T. N., Krützen, M., McKay, J. K., Norman, A. J., Ogden, R., Österling, E. M., Ouborg, N. J., Piccolo, J., Popović, D., Primmer, C. R., Reed, F. A., Roumet, M., Salmona, J., Schenekar, T., Schwartz, M. K., Segelbacher, G., Senn, H., Thaulow, J., Valtonen, M., Veale, A., Vergeer, P., Vijay, N., Vilà, C., Weissensteiner, M., Wennerström, L., Wheat, C. W., Zieliński, P. (2015). Genomics and the challenging translation into conservation practice. *Trends in ecology & evolution*, 30(2), 78-87., Peer Reviewed/Refereed

Tanger, P., Vega-Sánchez, M., Fleming, M., Tran, K., Singh, S., Abrahamson, J., Jahn, C. E., Santoro, N., Naredo, E., Baraoidan, M., Danku, J., Salt, D., McNally, K., Leung, H., Ronald, P., Bush, D., McKay, J. K., Leach, J. E. (2015). Cell wall composition of rice straw varies among environments, varieties, and tissue types: impacts on bioenergy potential. *BioEnergy Research*., Peer Reviewed/Refereed

Kenney, A. M., McKay, J. K., Richards, J. H., Juenger, T. E. (2014). Direct and indirect selection on flowering time, water-use efficiency (WUE, δ (13)C), and WUE plasticity to drought in *Arabidopsis thaliana*. *Ecology and evolution*, 4(23), 4505-21., Peer Reviewed/Refereed

Lovell, J. T., Grogan, K. A., Sharbel, T. F., McKay, J. K. (2014). Mating system and environmental variation drive patterns of adaptation in *Boechera spatifolia* (Brassicaceae). *Molecular ecology*, 23(18), 4486-97., Peer Reviewed/Refereed

Lasky, J. R., Des Marais, D. L., Lowry, D. B., Povolotskaya, I., McKay, J. K., Richards, J. H., Keitt, T. H., Juenger, T. E. (2014). Natural variation in abiotic stress responsive gene expression and local adaptation to climate in *Arabidopsis thaliana*. *Molecular biology and evolution*, 31(9), 2283-96., Peer Reviewed/Refereed

Des Marais, D. L., Auchincloss, L. C., Sukamtoh, E., McKay, J. K., Logan, T., Richards, J. H., Juenger, T. E. (2014). Variation in MPK12 affects water use efficiency in *Arabidopsis* and reveals a pleiotropic link between guard cell size and ABA response. *Proceedings of the National Academy of Sciences of the United States of America*, 111(7), 2836-41., Peer Reviewed/Refereed

Easlon, H. M., Nemali, K. S., Richards, J. H., Hanson, D. T., Juenger, T. E., McKay, J. K. (2014). The

- physiological basis for genetic variation in water use efficiency and carbon isotope composition in *Arabidopsis thaliana*. *Photosynthesis research*, 119(1-2), 119-29., Peer Reviewed/Refereed
- (2012). 2b-RAD: a simple and cost-effective method for genotyping on a genome-wide scale. *Nature Methods*, 9, 808-810., Peer Reviewed/Refereed
- (2012). Harnessing genomics for delineating conservation units. *Trends in Ecology and Evolution*, 27, 489-96., Peer Reviewed/Refereed
- (2012). The role of geography, climate and phenology in explaining genomic variation of *Arabidopsis thaliana*. *Molecular Ecology*, 22, 5512-29., Peer Reviewed/Refereed
- (2012). Variation and conservation of gene expression and physiological responses to soil drying stress among *Arabidopsis thaliana* accessions. *Plant Cell*, 24, 893-914., Peer Reviewed/Refereed
- (2011). Backcrossing provides an avenue for gene introgression from wheat to jointed goatgrass in the Great Plains. *Weed Science*, 59, 188-194., Peer Reviewed/Refereed
- (2010). Exploring genetic and expression differences between physiologically extreme ecotypes: comparative genomic hybridization and gene expression studies of Kas-1 and Tsu-1 accessions of *Arabidopsis thaliana*. *Plant, Cell and Environment*, 33, 1268-84., Peer Reviewed/Refereed
- (2010). Genetic variation in biomass traits among 20 diverse rice varieties. *Plant Physiology*., Peer Reviewed/Refereed
- (2010). Patterns of introduction and adaptation during the invasion of *Aegilops triuncialis* (Poaceae) into Californian serpentine soils. *Molecular Ecology*, 19, 5308-5319., Peer Reviewed/Refereed
- (2010). The role of adaptive trans-generational plasticity in biological invasions of plants. *Evol Appl*, 3, 179-192., Peer Reviewed/Refereed
- (2009). Multiple Origins Promote the Ecological Amplitude of Allopolyploid *Aegilops* (Poaceae). *Am J Bot*, 96, 1262-1273., Peer Reviewed/Refereed
- (2008). Ecological Genomics of Model Eukaryotes. *Evolution*, 62, 2953-2957., Peer Reviewed/Refereed
- (2008). Genetic variation in *Arabidopsis thaliana* for night-time leaf conductance. *Plant Cell Environ*, 31, 1170-1178., Peer Reviewed/Refereed
- (2008). Genetics of Drought Adaptation in *Arabidopsis Thaliana* Ii Qtl Analysis of a New Mapping Population, Kas-1 X Tsu-1. *Evolution*, 62, 3014-3026., Peer Reviewed/Refereed
- (2008). Herbivores and edaphic factors constrain the realized niche of a native plant. *Ecology*, 89, 754-762., Peer Reviewed/Refereed
- (2007). Adaptive versus non-adaptive phenotypic plasticity and the potential for contemporary adaptation in new environments. *Funct Ecol*, 21, 394-407., Peer Reviewed/Refereed
- (2006). Experimental verification of ecological niche modeling in a heterogeneous environment. *Ecology*, 87, 2433-2439., Peer Reviewed/Refereed
- (2006). Molecular evidence for adaptive radiation of *Micromeria Benth* (Lamiaceae) on the Canary Islands as inferred from chloroplast and nuclear DNA sequences and ISSR fingerprint data. *Mol Phylogenet Evol*, 41,

- (2006). Molecular evidence for an extreme genetic bottleneck during introduction of an invading grass to California. *Biol Invasions*, 8, 1355-1366., Peer Reviewed/Refereed
- (2005). "How local is local?" - A review of practical and conceptual issues in the genetics of restoration. *Restor Ecol*, 13, 432-440., Peer Reviewed/Refereed
- (2005). Identification and characterization of QTL underlying whole-plant physiology in *Arabidopsis thaliana*. *Plant Cell Environ*, 28, 697-708., Peer Reviewed/Refereed
- (2004). Latitudinal variation in genetic divergence of populations and the potential for future speciation. *Evolution*, 58, 938-945., Peer Reviewed/Refereed
- (2003). Genetics of drought adaptation in *Arabidopsis thaliana*. *Mol Ecol*, 12, 1137-1151., Peer Reviewed/Refereed
- (2002). Adaptive population divergence. *Trends Ecol Evol*, 17, 285-291., Peer Reviewed/Refereed
- (2002). Genetic population divergence. *Trends Ecol Evol*, 17, 501-502., Peer Reviewed/Refereed

Non-Refereed Journal Articles

- Fletcher, R. S., Mullen, J. L., Yoder, S., Bauerle, W. L., Reuning, G., Sen, S., Meyer, E., Juenger, T. E., McKay, J. K. Development of a next-generation NIL library in *Arabidopsis thaliana* for dissecting complex traits. *BMC Genomics* 14: 655., Not Peer Reviewed/Refereed
- Lowry, D. B., Logan, T. I., Santuari, L., Hardtke, C. S., Richards, J. H., DeRose-Wilson, L. J., McKay, J. K., Sen, S., Juenger, T. E. Expression QTL mapping across water availability environments reveals contrasting associations with genomic features in *Arabidopsis thaliana*. *The Plant Cell*, DOI 10.1105/tpc.113.115352., Not Peer Reviewed/Refereed
- Ågren, J., Oakley, C., McKay, J. K., Lovell, J., Schemske, D. Genetic mapping of adaptation reveals fitness trade-offs in *Arabidopsis thaliana*. *Proceedings of the National Academy of Scienc.*, Not Peer Reviewed/Refereed
- McKay, J. K., Lovell, J., Juenger, T., Michaels, S., Lasky, J., Platt, A., Richards, J., Yu, X., Sen, S. Protagonistic pleiotropy of FRIGIDA promotes adaptation and positive assortative mating. *Proceedings of the Royal Society, B* 280: 1043., Not Peer Reviewed/Refereed
- Mekonnen, M., Mullen, J. L., Seshadri, A., Assefa, Y., K., Byrne, P. F. Quantitative trait loci mapping for carbon isotope discrimination and root pulling force in canola (*Brassica napus* L.) under well-watered and dry conditions. *Euphytica*., Not Peer Reviewed/Refereed
- Mojica, J. P., Mullen, J. L., Lovell, J. T., Monroe, G. G., Paul, J. R., Oakley, C. G., McKay, J. K. (2016). Genetics of water use physiology in locally adapted *Arabidopsis thaliana*. *Plant science : an international journal of experimental plant biology*, 251, 12-22., Not Peer Reviewed/Refereed
- Monroe, G. G., McGovern, C., Lasky, J. R., Grogan, K. A., Beck, J., McKay, J. K. (2016). Adaptation to warmer climates by parallel functional evolution of CBF genes in *Arabidopsis thaliana*. *Molecular ecology*, 25(15), 3632-44., Not Peer Reviewed/Refereed
- Zhu, M., Monroe, G. G., Suhail, Y., Villiers, F., Mullen, J. L., Pater, D., Hauser, F., Jeon, B. W., Bader, J. S.,

- Kwak, J. M., Schroeder, J. I., McKay, J. K., Assmann, S. M. (2016). Molecular and systems approaches towards drought-tolerant canola crops. *The New phytologist*, 210(4), 1169-89., Not Peer Reviewed/Refereed
- Fletcher, R. S., Herrmann, D., Mullen, J. L., Li, Q., Schrider, D. R., Price, N., Lin, J., Grogan, K. A., Kern, A., McKay, J. K. (2016). Identification of Polymorphisms Associated with Drought Adaptation QTL in Brassica napus by Resequencing. *G3 (Bethesda, Md.)*, 6(4), 793-803., Not Peer Reviewed/Refereed
- Fletcher, R. S., Mullen, J. L., Heiliger, A., McKay, J. K. (2014). QTL analysis of root morphology, flowering time, and yield reveals trade-offs in response to drought in Brassica napus. *Journal of experimental botany*, eru423., Not Peer Reviewed/Refereed
- Reuning, G., Bauerle, B. L., Mullen, J. L., McKay, J. K. (2014). Combining quantitative trait loci analysis with physiological models to predict genotype specific transpiration rates. *Plant, Cell and Environment.*, Not Peer Reviewed/Refereed
- Enjalbert, J.-N., Zheng, S., Johnson, J. J., Mullen, J. L., Byrne, P. F., McKay, J. K. (2013). Brassicaceae germplasm diversity for agronomic and seed quality traits under drought stress. *Industrial Crops and Products*, 47, 176–185., Not Peer Reviewed/Refereed
- Enjalbert, J.-N., Zheng, S., Johnson, J. J., Mullen, J. L., Byrne, P. F., McKay, J. K. (2013). Brassicaceae germplasm diversity for agronomic and seed quality traits under drought stress. *Industrial Crops and Products*, 47:, 176-185., Not Peer Reviewed/Refereed
- Econopouly, B. F., McKay, J. K., Westra, P., Reid, S. D., Helm, A. L., Byrne, P. F. (2013). Phenotypic diversity of Aegilops cylindrica (jointed goatgrass) accessions from the western United States under irrigated and dryland conditions. *Agriculture, ecosystems & environment*, 164, 244--251., Not Peer Reviewed/Refereed
- Ågren, J., Oakley, C. G., McKay, J. K., Lovell, J. T., Schemske, D. W. (2013). Genetic mapping of adaptation reveals fitness tradeoffs in Arabidopsis thaliana. *Proceedings of the National Academy of Sciences of the United States of America*, 110(52), 21077-82., Not Peer Reviewed/Refereed
- Fletcher, R. S., Mullen, J. L., Yoder, S., Bauerle, B. L., Reuning, G., Sen, S., Meyer, E., Juenger, T. E., McKay, J. K. (2013). Development of a next-generation NIL library in Arabidopsis thaliana for dissecting complex traits. *BMC genomics*, 14, 655., Not Peer Reviewed/Refereed
- Lowry, D. B., Logan, T. L., Santuari, L., Hardtke, C. S., Richards, J. H., DeRose-Wilson, L. J., McKay, J. K., Sen, S., Juenger, T. E. (2013). Expression quantitative trait locus mapping across water availability environments reveals contrasting associations with genomic features in Arabidopsis. *The Plant cell*, 25(9), 3266-79., Not Peer Reviewed/Refereed
- Lovell, J. T., Juenger, T. E., Michaels, S. D., Lasky, J. R., Platt, A., Richards, J. H., Yu, X., Easlon, H. M., Sen, S., McKay, J. K. (2013). Pleiotropy of FRIGIDA enhances the potential for multivariate adaptation. *Proceedings. Biological sciences / The Royal Society*, 280(1763), 20131043., Not Peer Reviewed/Refereed
- Lasky, J. R., Des Marais, D. L., McKay, J. K., Richards, J. H., Juenger, T. E., Keitt, T. H. (2012). Characterizing genomic variation of Arabidopsis thaliana: the roles of geography and climate. *Molecular ecology*, 21(22), 5512-29., Not Peer Reviewed/Refereed
- Funk, C. C., McKay, J. K., Hohenlohe, P. A., Allendorf, F. W. (2012). Harnessing genomics for delineating conservation units. *Trends in ecology & evolution*, 27(9), 489-96., Not Peer Reviewed/Refereed
- Wang, S., Meyer, E., McKay, J. K., Matz, M. V. (2012). 2b-RAD: a simple and flexible method for genome-wide genotyping. *Nature methods*, 9(8), 808-10., Not Peer Reviewed/Refereed

- Des Marais, D. L., McKay, J. K., Richards, J. H., Sen, S., Wayne, T., Juenger, T. E. (2012). Physiological genomics of response to soil drying in diverse Arabidopsis accessions. *The Plant cell*, 24(3), 893-914., Not Peer Reviewed/Refereed
- Econopouly, B. F., McKay, J. K., Westra, P., Lapitan, N. L. V., Chapman, P. L., Byrne, P. F. (2011). Backcrossing Provides an Avenue for Gene Introgression from Wheat to Jointed Goatgrass (*Aegilops cylindrica*) in the US Great Plains. *Weed science*, 59(2), 188-194., Not Peer Reviewed/Refereed
- (2011). Linkage illuminates a complex genome. *Nature Biotechnology*, 29, 717-718., Not Peer Reviewed/Refereed
- Jahn, C. E., McKay, J. K., Mauleon, R., Stephens, J., McNally, K. L., Bush, D. R., Leung, H., Leach, J. E. (2011). Genetic variation in biomass traits among 20 diverse rice varieties. *Plant physiology*, 155(1), 157-68., Not Peer Reviewed/Refereed
- Meimberg, H., Milan, N. F., Karatassiou, M., Espeland, E. K., McKay, J. K., Rice, K. J. (2010). Patterns of introduction and adaptation during the invasion of *Aegilops triuncialis* (Poaceae) into Californian serpentine soils. *Molecular ecology*, 19(23), 5308-19., Not Peer Reviewed/Refereed
- Dyer, A. R., Brown, C. S., Espeland, E. K., McKay, J. K., Meimberg, H., Rice, K. J. (2010). The role of adaptive trans-generational plasticity in biological invasions of plants. *Evolutionary applications*, 3(2), 179-92., Not Peer Reviewed/Refereed
- Meimberg, H., Rice, K. J., Milan, N. F., Njoku, C. C., McKay, J. K. (2009). Multiple origins promote the ecological amplitude of allopolyploid *Aegilops* (Poaceae). *American journal of botany*, 96(7), 1262-73., Not Peer Reviewed/Refereed
- McKay, J. K., Stinchcombe, J. R. (2008). Ecological genomics of model eukaryotes. *Evolution; international journal of organic evolution*, 62(12), 2953-7., Not Peer Reviewed/Refereed
- McKay, J. K., Richards, J. H., Nemali, K. S., Sen, S., Mitchell-Olds, T., Boles, S., Stahl, E. A., Wayne, T., Juenger, T. E. (2008). Genetics of drought adaptation in *Arabidopsis thaliana* II. QTL analysis of a new mapping population, KAS-1 x TSU-1. *Evolution; international journal of organic evolution*, 62(12), 3014-26., Not Peer Reviewed/Refereed
- Christman, M. A., Richards, J. H., McKay, J. K., Stahl, E. A., Juenger, T. E., Donovan, L. A. (2008). Genetic variation in *Arabidopsis thaliana* for night-time leaf conductance. *Plant, cell & environment*, 31(8), 1170-8., Not Peer Reviewed/Refereed
- Lau, J. A., McCall, A. C., Davies, K. F., McKay, J. K., Wright, J. W. (2008). Herbivores and edaphic factors constrain the realized niche of a native plant. *Ecology*, 89(3), 754-62., Not Peer Reviewed/Refereed
- Meimberg, H., Abele, T., Bräuchler, C., McKay, J. K., de Pérez Paz, P. L., Heubl, G. (2006). Molecular evidence for adaptive radiation of *Micromeria Benth.* (Lamiaceae) on the Canary Islands as inferred from chloroplast and nuclear DNA sequences and ISSR fingerprint data. *Molecular phylogenetics and evolution*, 41(3), 566-78., Not Peer Reviewed/Refereed
- Wright, J. W., Davies, K. F., Lau, J. A., McCall, A. C., McKay, J. K. (2006). Experimental verification of ecological niche modeling in a heterogeneous environment. *Ecology*, 87(10), 2433-9., Not Peer Reviewed/Refereed
- Martin, P. R., McKay, J. K. (2004). Latitudinal variation in genetic divergence of populations and the potential for

future speciation. *Evolution; international journal of organic evolution*, 58(5), 938-45., Not Peer Reviewed/Refereed

McKay, J. K., Richards, J. H., Mitchell-Olds, T. (2003). Genetics of drought adaptation in *Arabidopsis thaliana*: I. Pleiotropy contributes to genetic correlations among ecological traits. *Molecular ecology*, 12(5), 1137-51., Not Peer Reviewed/Refereed

McKay, J. K., Bishop, J., Lin, J. Z., Richards, J. H., Sala, A., Mitchell-Olds, T. (2001). Local adaptation across a climatic gradient despite small effective population size in the rare sapphire rockcress. *Proceedings. Biological sciences / The Royal Society*, 268(1477), 1715-21., Not Peer Reviewed/Refereed

Bradshaw, Jr, H. D., Otto, K., Frewen, B. E., McKay, J. K., Schemske, D. W. (1998). Quantitative trait loci affecting differences in floral morphology between two species of monkeyflower (*Mimulus*). *Genetics*, 149(1), 367-82., Not Peer Reviewed/Refereed

Non-Refereed Proceedings or Transactions

McKay, J. K. Physiological Genetics of Drought Adaptation in *Brassica napus*. *Plant and Animal Genome XXIV Conference.: Plant and Animal Genome.*, Not Peer Reviewed/Refereed

Rice, K. J., Gerlach, J. D., Dyer, A. R., McKay, J. K. *Evolutionary ecology along invasion fronts of the annual grass *Aegilops triuncialis*.*: Biological Invasions, DOI 10.1007/s10530-013-0471-6., Not Peer Reviewed/Refereed

Mei, J., Ding, Y., Lu, K., Wei, D., Liu, Y., Disi, J., Li, J., Liu, L., Liu, S., McKay, J. K., Qian, W. *Identification of genomic regions involved in resistance against *Sclerotinia sclerotiorum* from wild *Brassica oleracea*.*: Theoretical and Applied Genetics, 126: 549-556., Not Peer Reviewed/Refereed

Econoply, B. F., McKay, J. K., Westra, P., Reid, S. D., Helm, A. L., Byrne, p. F. *Phenotypic diversity of *Aegilops cylindrica* (jointed goatgrass) accessions from the western United States under irrigated and dryland conditions.*: Agriculture, Ecosystems and Environment 164: 244-251., Not Peer Reviewed/Refereed

Eason, H. M., Nemali, K. S., Richards, J. H., Hanson, D. T., Juenger, T. E., McKay, J. K. *The physiological basis for genetic variation in water use efficiency in *Arabidopsis thaliana*.*: Photosynthesis Research, DOI 10.1007/s11120-013-9891-5., Not Peer Reviewed/Refereed

Kenney, A. M., McKay, J. K., Richards, J. H., Juenger, T. E. (2014). *Direct and indirect selection on flowering time, water-use efficiency (WUE, $\delta^{13}C$), and WUE plasticity to drought in *Arabidopsis thaliana*.*: Ecology and Evolution., Not Peer Reviewed/Refereed

Fletcher, R. S., Mullen, J. L., Heiliger, A., McKay, J. K. (2014). *QTL analysis of root morphology, flowering time and yield reveals tradeoffs in response to drought in *Brassica napus*.*: Journal of Experimental Botany., Not Peer Reviewed/Refereed

Lovell, J. T., Grogan, K., Sharbel, T., McKay, J. K. (2014). *Combining quantitative trait loci analysis with physiological models to predict genotype specific transpiration rates.*: Molecular Ecology., Peer Reviewed/Refereed

Lasky, J. R., Des Marais, D. L., Lowry, D. B., Povolotskaya, I., McKay, J. K., Richard, J. H., Keitt, T. H., Juenger, T. E. (2014). *Natural variation in abiotic stress responsive gene expression and local adaptation to climate in *Arabidopsis thaliana** (9th ed., vol. 31, pp. 2283-2296): Molecular Biology and Evolution., Not Peer Reviewed/Refereed

Des Marais, D. L., Auchincloss, L. C., Sukamtoh, E., McKay, J. K., Logan, T., Richards, J. H., Juenger, T. E. (2014). *Variation at MPK12 affects water use efficiency in Arabidopsis thaliana and reveals a pleiotropic link between guard cell size and ABA response* (7th ed., vol. 111, pp. 2836-41).: Proceedings of the National Academy of Sciences., Peer Reviewed/Refereed

Lovell, J. T., Juenger, T. E., Michaels, S. D., Lasky, J. R., Platt, A., Richards, J. H., Yu, X., Easlont, H. M., Sen, S., McKay, J. K. (2013). *Pleiotropy of FRIGIDA enhances the potential for multivariate adaptation*.: Proceedings of the Royal Society., Not Peer Reviewed/Refereed

Abstract

Tanger, P., Vega-Sanchez, M., Jahn, C. E., Santoro, N., Ronald, P., McKay, J. K., Bush, D., Leach, J. E. (2013). *Environmental variation in plant cell wall composition and implications for bioenergy*.: Colorado Center for Biorefining and Biofuels., Not Peer Reviewed/Refereed

comment, news

McKay, J. K., Leach, J. E. (2011). *Linkage illuminates a complex genome*. (8th ed., vol. 29, pp. 717-8).: Nature biotechnology., Not Peer Reviewed/Refereed

COMMITTEES

task force on graduate student diversity, (September 2015 - Present).

Search committee to hire Todd Gaines.

BSPM executive committee, (September 2013 - Present).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Society for the Study of Evolution. (2011 - 2040).

Colorado State University, Fort Collins, CO. (2012 - Present).

Evolution. (2012 - Present).

Nature. (2012 - Present).

New Phytologist. (2012 - Present).

Member, NSF Plant Genome Panel. (2012 - Present).

CROP SCIENCE. (2011 - Present).

Reviewer, Ad Hoc Reviewer, NSF. (2011 - Present).

Colorado State University, Fort Collins, CO. (2010 - Present).

Evolution. (2010 - Present).

Genetics. (2010 - Present).