JULIA PIASKOWSKI

Biosketch

EDUCATION

Washington State University, Pullman, WA	Plant Breeding/Crop Science Minor: Statistics	Ph.D., 2012
Washington State University, Pullman, WA	Plant Breeding/Crop Science	M.S. 2006
University of Idaho, Moscow, ID	Microbiology, Biochemistry & Molecular Biology. Minor: Chemistry	B.S. 2001

APPOINTMENTS

August 2018 - Present	**Statistical Consultant.** University of Idaho, College of Agriculture and Life Sciences – Statistical Programs.
Jan 2015 – July 2018	**Postdoctoral Associate in Research.** Washington State University, Department of Horticulture.
Aug 2014 – Dec 2016	**Postdoctoral Associate in Research.** Washington State University, Department of Crop & Soil Sciences.
July 2013 - July 2014	**Postdoctoral Associate in Research.** Washington State University, Department of Horticulture.
July 2012 - June 2013	**Research Associate** Washington State University, Department of Crop & Soil Sciences and USDA-ARS, Western Regional Plant Introduction Station.
Aug 2008 - June 2012	**Graduate Research Assistant** (Advisor: Kim Garland Campbell). Washington State University, Department of Crop & Soil Sciences.
May 2007 - Aug 2008	**Biological Science Technician.** USDA-ARS Wheat Genetics, Quality, Physiology, & Disease Research Unit.
Aug 2004 - Dec 2006	**Graduate Research Assistant** (Advisor: Steve Jones). Washington State University, Department of Crop & Soil Sciences.
Sept 2003 - July 2004	**Research Technician.** Washington State University, Department of Crop & Soil Sciences.

PEER-REVIEWED PUBLICATIONS

Hardner CM, Hayes BJ, Kumar S, Vanderzande S, Cai L, Piaskowski J, Quero-Garcia J, Campoy JA, Barreneche T, Giovannini D, Liverani A, Charlot G, Villamil-Castro M, Oraguzie N, and CP Peace (2019). "Prediction of Genetic Value for Sweet Cherry Fruit Maturity among Environments Using a 6K SNP Array." *Horticulture Research* 6(6). DOI: doi: 10.1038/s41438-018-0081-7.

Mugabe D, Coyne CJ, Piaskowski J, Zheng P, Ma Y, Landry E, McGee R, Main D, Vandemark G, Zhang H and S Abbo (2019). "QTL analysis of cold tolerance in chickpea." *Crop Science* 59(w). DOI: 10.2135/cropsci2018.08.0504

Piaskowski JL, Hardner C, Cai L, Zhao Y, Iezzoni I and C Peace (2018). Genomic heritability estimates in sweet cherry indicate non-additive genetic variance is relevant for industry-prioritized traits. *BMC Genetics* 19(23). DOI: 10.1186/s12863-018-0609-8

Vanderzande S, Piaskowski J, Luo F, Edge-Garza D, Klipfel J, Schaller A, Martin S and C Peace (2018). Crossing the finish line: How to develop diagnostic DNA tests as breeding tools after QTL discovery. *Journal of Horticulture* 5(1). DOI: 10.4172/2376-0354.1000228.

Piaskowski JL, Murphy KM, and SS Jones (2017). Perennial wheat lines have highly admixed population structure and elevated rates of outcrossing. *Euphytica* (213):171. DOI: 10.1007/s10681-017-1961-x.

Piaskowski JL, Brown, D and KG Campbell (2016). NIR calibration of soluble stem carbohydrates for predicting drought tolerance in spring wheat. *Agronomy Journal*. DOI:10.2134/agronj2015.0173.

Piaskowski, JL, Weddell B, Fuerst EP, Roberts D and LA Carpenter-Boggs (2013). Building supportive networks among agricultural innovators through a symposium on dryland organic farming. *Journal of Extension*, (6FEA6).

OTHER PRESENTATIONS AND REPORTS

Piaskowski JL, Jackson C, Marshall J and W Price (2019). Incorporating Spatial Statistics into Routine Analysis of Agricultural Field Trials [Speed Talk & Poster]. Joint Statistical Meeting. Denver, CO

Piaskowski JP, Hardner C and C Peace (2018). PREDICT: a tool for predicting progeny distribution in new crosses for multiple correlated traits [Poster]. Plant and Animal Genome XXVI. San Diego, CA.

Hardner CM, Peace CP, Hayes B, Kumar S, Piaskowski J, Vanderzande S, Castro MV, Cai L, Oraguzie N, Quero-García J, Barreneche T, Campoy J, Charlot G, Giovannini D, Liverani A, Gasic K, Byrne DH, Worthington M, Da Silva Linge C, Wünsch A and AF Iezzoni (2017). Environmental stability of genomic predictions of cherry and peach performance using models of large effect QTL and genetic background effects. Annual Meeting of the American Society of Horticultural Sciences. Waikoloa, HI.

Main D, Humann JL, Frank M, Piaskowski J, Jung S, Cheng C-H, Lee T, Scott K, Zheng P, Flores M, Saha S, Mueller L, Gmitter F and A Abbott (2017). Citrus Genome Database: Resources that enable basic, translational, and applied research. Annual Meeting of the American Society of Horticultural Sciences. Waikoloa, HI.

Piaskowski JL, Hardner CM, Cai L, Zhao Y, Iezzoni AF and CP Peace (2017). Cross Assist: on online tool for predicting progeny distribution in a new cross for multiple correlated traits in sweet cherry [Poster]. Annual Meeting of the National Association of Plant Breeders. Davis, CA.

Piaskowski JL, Humann JL, Main D, Jung S, Cheng C-H, Lee T, Frank M, Scott K, Flores-Gonzales M, Saha S, Mueller L, Abbott AG and FD Gmitter (2017). Citrus Genome Database (CGD): A Resource for Genomics, Genetics, and Breeding Research [Poster]. Plant and Animal Genome XXV. San Diego, CA.

Peace CP, Piaskowski JL, Sandefur P, Powell A, Luo F, Edge-Garza DA, Rowland TV, Johnson CR, Cai L, Antanaviciute L and SC Vanderzande (2016). DNA test cards: Delivering trait predictive discoveries to breeders. American Society for Horticultural Science, Atlanta, GA.

Hardner C, Vanderzande SC, Cai L, Piaskowski JL, Oraguzie N, Quero-García J, Campoy JA, Barreneche T, Wünsch A, Giovannini D, Liverani A, Sotiropoulos T, Kazantzis D, Kumar S, Hayes, B, and CP Peace (2016). Using SNP arrays to leverage historic data sets for improved prediction accuracy and estimation of GxE of fruit maturity in sweet cherry. RGC8: 8th International Rosaceae Genomics Conference, Angers, France.

Peace CP, Edge-Garza DA, Rowland TV, Ru S, Piaskowski JL, Vanderzande SC, and P Sandefur (2016). From QTLs to routine DNA-informed breeding: prospects, advances, and needs. RGC8: 8th International Rosaceae Genomics Conference, Angers, France.

Piaskowski JL and CP Peace (2016). Cross Assist v2.0 – what can it do for your breeding program and how should RosBREED improve on it? Presentation at Annual RosBREED Participant meeting. East Lansing, MI.

Piaskowski JL, Edge-Garza DA and CP Peace (2015). Quick Start Guide to DNA Tests.
Piaskowski JL, Murphy KM and SS Jones (2015) Cytogenetic characterization of perennial wheat lines. Poster. Annual Meeting of the ASA-CSSA-SSSA. Minneapolis, MN.
Piaskowski JL, Sandefur P, Coe M and C Peace (2015). An Extension-based approach to integrating DNA information into Rosaceae breeding programs: the importance of preaching to the choir. Annual Meeting of the National Association of Plant Breeders. Pullman, WA.
Piaskowski JL, Olmstead MA and D Main (2013). Creation of the Growers' Toolbox: A Decision-Making Toolkit for New Plantings of Apple, Cherry and Peach. Annual Meeting of the Washington State Horticulture Association. Wenatchee, WA.
McGee RJ, Coyne C, Piaskowski JL, Vandermark G, Zhang H and S Abbo. Screening for winter hardiness in a cultivated chickpea/wild relative RIL population. Annual Meetings of the ASA-CSSA-SSSA. Cincinnati, OH. Nov 2012.
Piaskowski JL and KG Campbell. The Use of Stem Reserve Carbohydrates to Predict Wheat Yield Under Drought. Western Society of Crop Science Annual Meetings. Pullman, WA. Nov 2012.
Piaskowski JL and LA Carpenter-Boggs. 2012. Marketing Opportunities for Dryland Organic Crops. 2012 Dryland Field Day Abstracts: Highlights of Research Progress. Technical Report 12. Washington State University.
Piaskowski JL and KG Campbell. 2012. Phosphorus Use Efficiency in Washington Spring Wheat. 2012 Dryland Field Day Abstracts: Highlights of Research Progress. Technical Report 12. Washington State University.
Piaskowski JL, Hoagland C and KG Campbell. Cultivar Variation in Spring Wheat Inoculated with Arbuscular Mycorrhizal Fungi. ASA-CSSA-SSSA Annual Meetings. Long Beach, CA. Nov 2010.

TEACHING, TRAININGS AND WORKSHOPS

- Workshop: Applied ANOVA in R, June 7, 2019 (Aberdeen, ID)
- Workshop: Applied ANOVA in R, June 6, 2019 (Twin Falls, ID)
- Guest Lecture: Estimating Heritability using R Packages and Tools, May 2, 2019 (Aberdeen, ID via Zoom)
- Workshop: Creating Awesome Plots with ggplot2, April 11, 2019 (Zoom)
- Workshop: Introduction to Data Cleaning with the Tidyverse, April 4, 2019 (Zoom)
- Workshop: Applied ANOVA in R, March 28, 2019 (Zoom)
- Workshop: Introduction to R, February 28, 2019 (Moscow, ID and via Zoom)
- Workshop: Writing Faster R code, March 27, 2019 (Moscow, ID)
- Seminar: Avoid Bias When Estimating Relatedness with Genomic Data, November 13, 2018, UI Statistics Seminar (Moscow, ID)
- Workshop: Introduction to R, October 3, 2018 (Aberdeen, ID)
- Workshop: Introduction to R, October 2, 2018, (Twin Falls, ID)
- Seminar: Speeding Up Your R Code, September 19, 2018 (Pullman, WA)
- Estimating DNA Allele Effects with Asreml, May 31, 2018 (Pullman, WA)
- Workshop: Crash Course in R, May 21, 2018 (Pullman, WA)
- Co-taught Hort 202: Crop Growth and Development, Spring, 2014 (Washington State University)
- Co-taught Hort 202: Crop Growth and Development, Spring, 2015 (Washington State University)
- Co-taught Hort 503: Bioinformatics for Researchers, Fall, 2013 (Washington State University)
- TA for Hort 102: Introduction to Cultivated Plants, Fall, 2006 ((Washington State University)

ONLINE TOOLS CREATED

- R/Online book: Incorporating Spatial Analysis into Agricultural Field Experiments (deployed 2019/07/31)
- R/Shiny app: Cherry GEBV XplorR (deployed August 2017, last updated 2017/09/21)
- R/Shiny app: Multi-trait Sweet Cherry Crossing Simulator (deployed July 2017, last updated 2017/08/10)
- R/Shiny app: Selection Simulator for 3 Correlated Traits: Teaching tool for selection across multiple traits (deployed July 2016, last updated 2017/10/01)
- Co-managed Rosbreed website 2015-2018 (www.rosbreed.org)
- Curated data for the Citrus Genome Database 2013 -2014 (https://www.citrusgenomedb.org)

OUTREACH PRESENTATIONS

- Precision parent selection tool for the WSU apple breeding program. Presentation to the Washington Tree Fruit Research Commission in Pasco, WA. January 12, 2018.
- Current status of cherry and apple genetics research in RosBREED. Presentation made to RosBREED International Partners' Meeting. San Diego, CA. January 22, 2018.
- Adventures in Cherry Geneticizing. Presentation on implementing genomic selection using sweet cherry as an example. Presentation to Driscoll's in Watsonville, CA. December 21, 2016.
- Enabling DNA-informed breeding in the private small berry breeding industry. Presentations given at Driscolls, Pacific Berry Breeding and Plant Sciences, Inc. in Watsonville, CA. September 13 – 15, 2016.
- Status of field trial findings and research needs in phosphorus use efficiency. Update to Advisory Board for the Pacific Northwest Dryland Organic Cropping System Project. February 2011.
- Overview of field trials for phosphorus use efficiency. Aeschliman No-till Farm. International Exchange on the Palouse (tour for farmers from New Zealand and Germany who practice direct seeding). June 24, 2010.
- Overview of field trials for wheat-mycorrhizal associations. WSU Field Day for Organic Cropping Systems on the Palouse. June 16, 2010.

FELLOWSHIPS & GRANTS

- 2015-2016 BioAg Grant Recipient: "The Search for Acid-Tolerant Rhizobia." LA Carpenter-Boggs, RJ McGee, and G Vandemark.
- 2011 CROPP Cooperative/Organic Valley Farmers Advocating for Organics Grant Recipient: Additional Funds for the Conference Proposal for Dryland Organic Agriculture in the Pacific Northwest
- USDA OREI 2011 Grant Recipient: Conference Proposal for Dryland Organic Agriculture in the Pacific Northwest: Addressing Constraints to Production, Economics, and Sustainability
- 2010: Washington State University Goldsworthy Research Scholarship
- 2008-2009 BioAg Grant Recipient: Evaluation of Wheat Varieties for Mutualism with Endomycorrhizal Fungi to Improve Phosphorus Uptake
- Fall, 2005: Graduate School Travel Grant, WSU
- 2005-2006: Graduate Research Fellowship, The Land Institute, Salina, KS

CONFERENCES ORGANIZED

- Conference on Dryland Organic Agriculture in the Pacific Northwest. November 11, 2011. Yakima, WA

SERVICE

- GxE Journal Club Organizer/Leader (Fall, 2017)
- Organized 2-day ASreml workshop at WSU (workshop held January, 2018)
- Peer Review Editor: Agronomy Journal, Crop Science, G3, Horticulture Research, PLOS One
- Volunteer: Social Media Organizer, Friends of the Clearwater. May, 2010 – September, 2011.
- Volunteer: Moscow Food Co-op. August, 2008 – June, 2009.
- Board of Directors: Washington Sustainable Food & Farming Network. March, 2006 – March, 2009.
- Volunteer: WSU Organic Farm. Summer Field Seasons (May-August), 2005-2006.

PROFESSIONAL MEMERSHIPS

- American Statistical Association
- Crop Science Society of America
- Genetics Society of America