Jill A. Hamilton, Ph.D.

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EDUCATION

2008-2012 **PhD**, Department of Forest Science, Faculty of Forestry, University of British Columbia, Vancouver, BC, Canada
Thesis: Genomic and phenotypic architecture of a spruce hybrid zone (*Picea sitchensis x P. glauca*).
Advisor: Dr. Sally N. Aitken

2002-2005 **MSc**, Department of Biology, Queen's University, Kingston, ON, Canada.
Thesis: Population genetic consequences of geographic disjunction in a prairie plant species isolated on Great Lake alvars. *Advisor:* Dr. Christopher G. Eckert

1997-2002 **BSc Honours**, Department of Biology, University of Winnipeg, Winnipeg, MB, Canada.
Thesis: The ecology of big bluestem (*Andropogon gerardii* Vitman) in Riding Mountain National Park.
Advisor: Dr. Richard J. Staniforth

PROFESSIONAL EXPERIENCE

2026 – present **Associate Director, Plant Institute**, Huck Institutes of the Life Sciences, Pennsylvania State University, State College, PA, USA

2021 – present **Associate Professor, Director of the Schatz Center in Tree Molecular Genetics and Ibberson Chair of Silviculture Research,** Department of Ecosystem Science and Management, Pennsylvania State University, State College, PA, USA

2015 – 2021 **Assistant Professor**, Department of Biological Sciences, North Dakota State University, Fargo, ND, USA

2014 – 2015 **Postdoctoral Fellow**, Department of Evolution and Ecology, University of California, Davis, CA, USA, 2014 – 2015, *Advisor:* Dr. Johanna Schmitt

- Local adaptation across environments: teasing apart the genetic basis of complex traits in model and non-model systems

2012 – 2014 **Postdoctoral Fellow**, Department of Biology, University of Alberta, Edmonton, Alberta, Canada, *Advisor*: Dr. Janice E. K. Cooke

- **TRIA – Mountain Pine Beetle System Genomics & SMarTForests**

2005 – 2007 **Research Assistant**, Cereal Research Centre, Agriculture & Agri-Food Canada, Winnipeg, MB, Canada, *Advisors:* Dr. Daryl Somers & Dr. Jeannie Gilbert

- Molecular breeding for disease resistance, molecular mapping, quantitative genetics and plant pathology in wheat

PEER-REVIEWED PUBLICATIONS ([u]undergraduate student, [g]graduate student, [p]postdoc)

44. Kapoor, B., Cregger, M.A., **Hamilton, J.A.,** Mead, A.[p], and R. Ranjan (Accepted at *Bioinformatics*) RAPID: an interactive R/Shiny platform for end-to-end 16S rRNA and ITS amplicon sequence analysis using DADA2.

43. LoPiccolo, K.[g], Mazza, J.[u], Anderson, L.[u], Davaasuren, D., and **J.A. Hamilton** (Accepted at *Annals of Botany*) Climate gradients drive the evolution of seed morphology and life history with impacts to seedling fitness in *Fraxinus nigra.*

42. **Hamilton, J.A.** (2026) Molecular passports for ex situ seed donors: enhanced genetic monitoring for plant conservation. *Molecular Ecology* 35: e70324

41. Mead, A.[p] , Beasley-Bennet, M., Bleich, J.R., Fischer, D., Flint, S., Golightly, J., Klopf, S.K., Kulbaba, M. W., Lasky, J. R., LeBoldus, J. M., Lowry, D. B., Mitchell, N., Moran, E., Sexton, J.P., Søndreli, K. L., Worthing, B., Zavala-Paez, M.[g], Fitzpatrick, M. C., Holliday, J., Keller, S., and **J.A. Hamilton** (2026) Variation in responses to temperature across admixed genotypes of *Populus trichocarpa* x *P. balsamifera* predict geographic shifts in regions where hybrids are favored. *New Phytologist* 249: 1509-1526.

40. Zavala-Paez, M.[g], Keller, S., Holliday, J., Fitzpatrick, M.C., and **J.A. Hamilton** (2026) Climate and hybridization shape stomatal trait evolution in *Populus. New Phytologist* 249: 792-809
Special Collection on Stomata

39. Zavala-Paez, M.[g], Sutara, B.[u], Keller, S., Holliday, J., Fitzpatrick, M.C., and **J.A. Hamilton** (2025) The role of cytonuclear interactions to plant adaptation across a *Populus* hybrid zone. *Proceedings of the Royal Society B* 292: 20251239

38. Di Santo, L. N.[g], Mead, A.[p], Wright, J. W., and **J.A. Hamilton** (2025) Genomic signatures of reproductive isolation between two remnant native populations of Torrey pine (*Pinus torreyana* Parry). *Evolutionary Applications.* 18: e70094.

37. Rana, S. K.[p], Lindstrom, J.[g], Lehrer, M.A.[p], Alhering, M., and **J.A. Hamilton** (2025) Forecasting resilient hotspots of suitable grassland habitat under global change: insights to facilitate restoration. *Biological Conservation* 302: 110988
Special Issue: Addressing complex drivers of land degradation via adaptive management

36. Melton, A. E.[p], Faske, T. M., Sniezko, R., Thibault, T., Williams, W., Parchman, T. L., and **J.A. Hamilton** (2025) Genomics-driven monitoring of Oregon ash (*Fraxinus latifolia*) for conservation and EAB-resistance breeding. *Molecular Ecology* 34: e17640
Special Issue on Conservation Genomics – Making a Difference

35. McLaughlin, C.M., Hinshaw, C., Sandoval-Arango, S., Zavala-Paez, M[g], and **J.A. Hamilton** (2025) Redlisting genetics: towards incorporation of genomic data in conservation assessments. *Conservation Genetics*.

34. Bolte, C.E.[p], Phannareth, T., Zavala-Paez, M.[g], Sutara, B.[u], Can, F., Fitzpatrick, M., Holliday, J., Keller, S., and **J.A. Hamilton** (2024) Genomic insights into hybrid zone formation: the role of climate, landscape, and demography in the emergence of a novel hybrid lineage. *Molecular Ecology*. 14: e17430.

33. Sullivan, L, Portlas, Z.[u], Jaeger, K. Hoffner, M.[u], and **J.A. Hamilton** (2024) The evolution of dispersal across a discontinuous landscape. *Ecology and Evolution* 14: e11231.

32. Zavala-Paez, M[g], J.A. Holliday, and **J.A. Hamilton** (2024) Leveraging whole-genome sequencing to estimate telomere length in plants. *Molecular Ecology Resources.* 2: e13899.

31. Lindstrom, J.[g], Ahlering, M., and **J.A. Hamilton** (2023) Seed sourcing for climate-resilient grasslands: the role of seed source diversity during early restoration establishment. *Ecology and Evolution*. 13: e10756.

30. Kulbaba, M., Yoko, Z[g], and **J.A. Hamilton** (2023) Chasing the fitness optimum: temporal variation in the genetic and environmental expression of life-history traits for a perennial plant. *Annals of Botany*. 132: 1191-1204.

29. Keagy, J., Drummond, C., Gilbert, K., Grozinger, C., **Hamilton, J.A.,** Hines, H., Lasky, J., Logan, C., Sawers, R., Wagner, T. (2025) Landscape transcriptomics as a tool for addressing global change effects across diverse species. *Molecular Ecology Resources.* 25: e13796 ***Special Issue: Advancing species conservation and management through omics tools***

28. Di Santo, L.[g], Hoban, S.M., Parchman, T.L., Wright, J.W. and **J.A. Hamilton** (2022) Reduced representation sequencing to understand the evolutionary history of Torrey pine (*Pinus torreyana*) with implications for rare species conservation. *Molecular Ecology*. 31: 4622–4639.

27. Volk, J.[g], Braasch, J.[p], Ahlering, M., and **J.A. Hamilton** (2022) Environmental contributions to the evolution of trait differences in *Geum triflorum*: implications for restoration. *American Journal of Botany* 109:1822-1837 **Special Issue: Approaches to the study of quantitative fitness-related traits**

26. Benomar, L. Elferjani, R., **Hamilton, J.A**., O'Neill, G.A., Echchakoui, S., Bergeron, Y., and L. Mebarek (2022) Bibliometric analysis of the structure and evolution of research on assisted migration. 8: 199-213.

25. VanWallendael, A., Lowry, D.B., and **J.A. Hamilton** (2022) One hundred years into the study of ecotypes, new advances are being made through large-scale field experiments in perennial plant systems. *Current Opinion in Plant Biology*. 66: 102152.

24. Galla, S.J., Brown, L., Cubrinovska, I. Eason, D., Gooley, R.M., **Hamilton, J.A.,** Heath, J.A., Hauser, S.S., Hogg, C.J., Latch, E.K., Matocq, M.D., Richardson, A., Santure, A.W., Winters, D.J., Wold, J.R., and T.E. Steeves (2021) The relevance of pedigrees in the conservation genomics era. *Molecular Ecology*. 31: 41-54.

23. Braasch, J.E.[p], Di Santo, L.N.[g], Tarble, Z.[u], Prasifka, J.R., and **J.A. Hamilton** (2021) Testing for evolutionary change in restoration: a genomic comparison between *ex situ*, native and commercial seed sources of *Helianthus maximiliani. Evolutionary Applications* 14: 2206-2220.

22. Di Santo, L[g], Polgar, M[u], Nies, S[u], Hodgkiss, P., Canning, C., Wright, J.W., and **J.A. Hamilton** (2021) Seed morphology and emergence variability in a conservation collection of *Pinus torreyana. AOB Plants.* 13 (5): plab058.

21. Di Santo, L[g] and **J.A. Hamilton** (2021) Environmental and geographic data optimize ex situ collections the and the preservation of adaptive evolutionary potential. *Conservation Biology* 35: 733-744.

20. **Hamilton, J.A.,** Flint, S., Lindstrom, J.[g], Volk, K.[g], Shaw, R., and M. Ahlering (2020) Evolutionary approaches to seed sourcing for grassland restorations. *New Phytologist* 225: 2246-2248.

19. Yoko, Z.[g], Volk, K.[u], Dochtermann, N., and **J. A. Hamilton** (2020) The importance of quantitative trait differentiation in restoration: landscape heterogeneity and functional traits inform seed transfer guidelines. *AOB Plants ** Special Issue on the Ecology and Genetics of Population Differentiation in Plants ** Featured in BotanyONE*

18. Martinez-Berdeja, A., **Hamilton, J.A.,** Bontemps, A., Schmitt, J., and J.W. Wright (2019) Evidence for population differentiation among Jeffrey and Ponderosa pines in survival, growth and phenology. *Forest Ecology and Management.* 434: 40-48.

17. **Hamilton, J.A.** and Z. Tarble[u] (2018) Developing quantitative skills for ecological data: the effects of climate warming on phenological variation and species interactions. *QUBES Educational Resources*. doi:10.25334/Q44Q7G

16. **Hamilton, J.A.** and J. M. Miller (2018) From transects to transcripts: teasing apart the architecture of reproductive isolation. *Molecular Ecology*. 27: 1339-1341.
** *Invited News & Views feature commentary*

15. **Hamilton, J.A**., Royauté, R., Wright, J. W., Hodgskiss, P., and F. T. Ledig (2017) Genetic conservation and management of the California endemic, Torrey pine (*Pinus torreyana* Parry): implications of genetic rescue in a genetically depauperate species. *Ecology and Evolution* 7: 7370-7381.

14. Janes, J. and **J. A. Hamilton** (2017) Mixing it up: the role of hybridization in forest management and conservation under climate change. *Forests* 8 (7): 237 **Special Issue on New Insights into Climate Sensitivity of Forest Growth, Health, and Disturbance: Vulnerability, Resilience, and Change

13. **Hamilton, J.A.,** El Kayal, W., Hart, A.[u], Runcie, D.E., Arango-Velez, A., and J. Cooke. (2016) Teasing apart the influence of photoperiod and temperature on growth cessation and dormancy in white spruce (*Picea glauca*). *Tree Physiology* 36 (11): 1432-1448.

12. Stockwell, C.A., Kinnison, M.T., Hendry, A.P. and **J.A. Hamilton** (2016) Evolutionary Restoration Ecology *in* Foundations of Restoration Ecology, edited by Falk et al., Island Press.

11. **Hamilton, J.A**., Okado, M., Korves, T. & J. Schmitt. (2016) The role of climate adaptation in colonization success in *Arabidopsis thaliana in* Invasion Genetics: The Baker and Stebbins Legacy, edited by Barrett et al., Wiley-Blackwell

10. Cullingham, C.I., Thiessen, C., Derocher, A., Paquet, P., Miller, J., **Hamilton, J.A.,** and D. W Coltman (2016) Population structure and dispersal of wolves in the Canadian Rocky Mountains. *Journal of Mammalogy* 97 (3): 839-851.

9. Miller, J. M., and **J.A. Hamilton.** (2016) Interspecies hybridization merits consideration in the conservation toolbox: response to Kovach et al. 2016. *Conservation Biology* 30: 431-433.

8. **Hamilton, J.A.,** and J. M. Miller. (2016) Adaptive introgression: a resource for management and genetic conservation in a changing climate. *Conservation Biology*. 30: 33-41.
** *Featured in the Molecular Ecologist*
** *Featured in WILDLIFESNIPITS*

** *Featured in Molecular Ecology*

7. **Hamilton, J.A**., Okado, M., Korves, T. & J. Schmitt. (2015) The role of climate adaptation in colonization success in *Arabidopsis thaliana*. *Molecular Ecology* 24: 2253-2263.
** *Special Issue on Invasion Genetics: the Baker and Stebbins Legacy*

6. **Hamilton, J.A.,** de la Torre, A., and S. N. Aitken. (2015) Introgression across a three-species spruce hybrid complex facilitates adaptation to diverse climates. *Tree Genetics and Genomes* 11:1-14.

5. **Hamilton, J.A**., Lexer, C. and S.N. Aitken (2013) Genomic and phenotypic architecture of a spruce hybrid zone (*Picea sitchensis x P. glauca*). *Molecular Ecology* 22: 827-841.
** *Special Issue on Evolutionary Ecological Genomics*

4. **Hamilton, J.A**., Lexer, C. and S.N. Aitken (2013) Differential introgression reveals candidates for selection across a spruce (*Picea sitchensis x P.* glauca) hybrid zone. *New Phytologist* 197: 927-938.

3. **Hamilton, J.A**., & S.N. Aitken. (2013) Genetics and morphology of a spruce (*Picea sitchensis x P. glauca*) hybrid zone along a precipitation gradient. *American Journal of Botany* 100 (8): 1651-1671.

2. Gornish, E.S., **Hamilton, J.A**., Barberan, A., Benito, B.M., Binzer, A., DeMeester, J.E., Gruwez, R., Moreira, B., Taheri, S., Tomiolo, S., Vinagre, C., Vuarin, P., and Weaver, J. (2013) Interdisciplinary climate change collaborations are essential for early-career scientists. *EOS: Transactions of the American Geophysical Union* 94 (16): 151.

1. **Hamilton, J.A**. and C.G. Eckert (2007) Population genetic consequences of geographic disjunction: a prairie plant species isolated on Great Lakes alvars. *Molecular Ecology* 16: 1649-1660.

SUBMITTED

Zavala-Paez, M. [g], Mead, A [p]., Worthing, B., Klopf, S., Holliday., Fitzpatrick, M., Keller, S., and J.A. Hamilton (In Revision at *Evolution*) Genetic variation underlying plasticity for physiological traits mediates response to climate in a *Populus* hybrid zone.

Smith, Z.C., Huff, M., Carey, D.W., Mason, M.E., Pauloski, N., Webster, C.N., Rutter, M., Baukus, D.C., Petursson, R., Maren, N.A., LoPiccolo, K. [g], Kuster, R.D., Williams, W., Hadziabdic, D., **Hamilton, J.A.**, Wegrzyn, J.L., Koch, J.L., and M.E. Staton (Revising to Resubmit) Diallelic self-incompatibility drives the recurrent evolution of dioecy in *Fraxinus*.

Mead, A [p], Zavala-Paez, M. [g], Beasley-Bennett, J. R., Bleich, A. C., Clancy-Mallue, I. P., [u] Fischer, D. G., Golightly, J. M., Hufford, K. M., Kalcsits, L. A., Klopf, S. K., Lasky, J. R., LeBoldus, J. M., Lowry, D. B., Mitchell, N., Moran, E. V., Sexton, J. P., Sondreli, K. J., Fitzpatrick, M. C., Holliday, J., Keller, S., and **J.A. Hamilton** (Revising to Resubmit) Phenotypic plasticity evolved for climate variability constrains performance under climate warming.

NON PEER-REVIEWED PUBLICATIONS

Hamilton, J.A. and Gottlieb, R. [u] (Eds.) (2025) Proceedings of Forest Genetics 2025: the 38th annual Southern Forest Tree Improvement Committee, and Western, and Northern Forest Genetics Association Joint Conference; June 23-27. State College, PA. 115 p.

Lehrer, M.A.[p] and **J.A. Hamilton** (2023) Preserving range-wide genetic diversity of Fraxinus nigra. *Tree Seed Working Group News Bulletin*, Canadian Forest Genetics Association 74: 17-21.

Hamilton, J.A. (2009) Evaluation of genetic issues *in* Guidelines for Translocation of Plant Species at Risk in British Columbia, BC Ministry of the Environment, Victoria, BC.

FUNDED & PENDING GRANTS

2026 co-PI: Department of Energy Genesis Phase 1 – AI-guided engineering of cross-kingdom metabolic networks in soil microbiomes ($225,000, pending)
2025 PI: Pennsylvania DCNR – Genetics study to aid in Shortleaf Pine conservation, expansion, and improvement of climate change resiliency in Pennsylvania ($75,532, pending)
2026 PI: USDA-McIntire-Stennis – The functional role of within- and between-species genetic variation for regulation of drought response in *Populus* ($199,191)
2026 co-PI The Nature Conservancy – Tree Species in Peril: American Beech, Eastern Hemlock, and Three Eastern Ash Species ($7,800,000, Hamilton Lab $225,646)
2025 co-PI Pittsburgh Parks – Fezziwig Yellowwood Genetic Diversity ($199,403)
2024 PI: USDA-McIntire-Stennis – Adaptive conservation strategies for Black ash (*Fraxinus nigra*) in response to climate change and the Emerald Ash Borer: leveraging genetic variation and environmental insights ($169,839)
2023 co-PI USDA-McIntire-Stennis - Climate-Smart Forestry: providing a foundation for assisted population migration in northeastern forests ($194,244)
2022 PI: USDA-McIntire-Stennis – Ex-situ conservation collections and development of genecology trial for black ash pre-breeding resources ($193,554)
2022 co-PI The Nature Conservancy – Tree Species in Peril: American Beech, Eastern Hemlock, and Three Eastern Ash Species ($4,714,234, Hamilton Lab $224,251)
2022 PI: The American Chestnut Foundation – American Chestnut Breeding Program Support ($362,182)
2021 PI: USDA-McIntire-Stennis – Genomics-driven monitoring of Oregon Ash for gene conservation and development of pre-breeding resources ($192,132)
2021 co-PI: SNIP-Level II Pursuit Grant Proposal – Landscape transcriptomics as a new tool for natural and agricultural resource management ($25,000)
2021 co-PI: Penn State Huck Institutes of the Life Sciences – Predoctoral Fellowship Preparation Course/Workshop – USDA Predoctoral Applications.
2019 PI: North Dakota Dept of Agriculture – Specialty Crop Block Grant: Creating a predictive framework for cold tolerance in North Dakota grape cultivars ($105,126)
2019 co-PI: NSF-PGRP: Genomic architecture of porous species boundaries: implications for climatic adaptation and hybrid breeding ($2.5 million, Hamilton Lab $750,000)
2019 co-PI: New Phytologist Trust: 'Towards a Unified Research Agenda on Local Adaptation' Workshop (£1,000)
2019 PI: USDA-Forest Service: Incorporating a climate-based adaptation approach for post-fire reforestation - cold tolerance: continuing award ($7,000)
2019 PI: The Nature Conservancy – Cooperative Agreement: Restoring forb diversity to combat invasive species and improve habitat quality for grassland birds: evaluating the role of seed source diversity ($45,527)
2018 PI: XSEDE Startup (MCB180060): The role of whole genome duplications in niche divergence (estimated value: $1,157.50 – advanced computing allocation)
2018 PI: USDA-Forest Service: White bark pine (*Pinus albicaulis*) cold hardiness testing ($6,365)
2017 PI: Morton Arboretum: Ground-truthing ex situ conservation collections: population genetic structure in the rare, California endemic Torrey pine (*Pinus torreyana*) ($15,900)
2017 PI: USDA-NACA: Intraspecific variation and possible effects on the utility of non-crop Asteraceae ($23,000)

2017 PI: NIH INBRE/NDSU Bioinformatics Seed Grant: The impact of polyploidy and hybridization in evolutionary diversification ($24,160)
2017 PI: USDA-Forest Service: Incorporating a climate-based adaptation approach for post-fire reforestation - cold tolerance ($5,000)
2016 PI: NSF-DEB RAPID: Evolution of reproductive barriers in long-lived conifers ($14,752)
2016 PI: USDA-Forest Service: Ex-situ conservation for the rare Californian endemic Torrey Pine (*Pinus torreyana* Parry) ($21,800)
2016 PI: NDSU Seed Grant: Mechanisms of local adaptation in divergent environments: the impact of polyploidy and hybridization in evolutionary diversification ($5,000)
2016 Pacific Rim Tonewoods – Genomic ancestry of spruce in the Nass River region ($8,000)
2015 NDSU Department of Biological Sciences Faculty Travel Grant ($500)
2015 NDSU College of Science and Math Faculty Travel Grant ($625)

PROFESSIONAL WORKSHOPS AND COURSES ATTENDED

- 2026 – Plant Resilience Institute - Huck Institutes of the Life Sciences Symposium, Lansing, MI
- 2026 – Tree Evolution Colloquium, Windsor Park, UK
- 2026 – Plant and Animal Genome Meeting (PAG 33) – Comparative Genomics Workshop
- 2025 – Inter-nation Gathering on the Future of Black Ash and Basketry
- 2024 – Future of Brown Ash: Weaving Indigenous Knowledge and Western Science to promote resilience amidst Emerald Ash Borer invasion
- 2024 – PopUp Poplars Meeting (Co-organizer)
- 2023 – Emerald Ash Borer and Ash Resilience Research Webinar (APCAW)
- 2022 – North American Forest Genetics Society – Conservation and Restoration Working Group
- 2022 - Conservation of rare species: integrating field and molecular approaches to advance plant conservation, Hawaii (Invited speaker - Virtual)
- 2021 – Forest Genetics Student Symposium (Virtual) – Invited Career Perspectives Panel
- 2020 – Conservation of rare species: integrating field and molecular approaches to advance plant conservation, Hawaii (Invited panelist – rescheduled online for 2022)
- 2019 – Towards a unified research agenda on local adaptation that applies evolutionary approaches to seed sourcing for grassland restorations in the upper Midwest and Great Plains – University of Minnesota, St. Paul, MN (Co-organizer)
- 2019 – Plant Conservation Genetics, San Diego Zoo, San Diego, CA (Invited Speaker)
- 2019 – Using Digitized Collections-Based Data in Research: Applications for Ecology, Phylogenetics, and Biogeography (Botany Meeting, Tucson, AZ)
- 2019 – The State of Biodiversity, San Diego Natural History Museum, San Diego, CA (Invited Panelist)
- 2018 - DIG into Data for the Biology Classroom Faculty Mentoring Network (ESA-QUBES partnership, selected participant)
- 2017-18 GatewaysND - Learner-Focused STEM Instructional Cohorts, Fargo, ND (selected participant)
- 2017-18 Gear up for Grants: NSF CAREER Proposal Development Program
- 2017 Species Distribution Modeling in R: From Start to Finish, Portland, OR
- 2016 National Academies Special Topics Summer Institute on Course-based Undergraduate Research Experiences, Austin, TX (selected participant)
- 2015 NGS for evolutionary biologists: from basic scripting to variant calling, Rome, Italy (selected participant)
- 2014 Evolutionary Quantitative Genetics, National Institute for Mathematical and Biological Synthesis, Knoxville, TN (selected participant)

- 2013 Instructional Strategies for Student Learning and Assessing Student Learning, Edmonton, Alberta
- 2012 Ecological Consequences of Climate Change: Integrating Research Approaches Workshop, Donana National Park, Sevilla, Spain (selected participant)
- 2011 Visiting PhD Candidate – Dr. C. Lexer, University of Fribourg, Fribourg, Switzerland
- 2010 Summer Institute in Statistical Genetics, University of Washington
  Courses: Computing for Statistical Genetics, MCMC for Genetics and Plant and Animal Association Mapping
- 2004 Summer Institute in Statistical Genetics, North Carolina State University
  Courses: Introduction to Regression and ANOVA, Principles of Quantitative Genetics

SELECTED PRESENTATIONS
(*presenter, [u]undergraduate student, [g]graduate student, [p]post-doctorate)

Mead, A., Zavala-Paez, M., Budde, K., and J.A. Hamilton* (2026) - Evolution on two continents: genetic structure and diversity of green ash (*Fraxinus pennsylvanica*) within its native and introduced range. Frax-Net meeting, Malmo, Sweden.

Hamilton, J.A.* (2026) The adaptive future of forest trees and the role of hybridization. North American Forest Genetics Conference, Quebec City, QC, Canada. **Invited Speaker**

Hamilton, J.A.* (2026) Creating the molecular passport: genomics-driven monitoring for conservation and restoration. Royal Botanic Gardens – Kew, Richmond, UK.

Hamilton, J.A.* (2026) Natural hybrid zones as model systems to investigate the genomic basis for adaptation in forest trees. University of Sheffield, Sheffield, UK.

Hamilton, J.A.* (2026) Creating the molecular passport: genomics-driven monitoring for conservation and restoration. University of Memphis, Memphis, TN, USA.

Hamilton, J.A.* (2026) Natural hybrid zones as model systems to investigate the genomic basis for adaptation in forest trees. Trent University, Peterborough, ON, Canada.

Hamilton, J.A* (2026) Hybrid zones as evolutionary models for identifying genetic variation underlying traits critical to climate adaptation in forest trees. Plant and Animal Genomics Meeting, Comparative Genomics Workshop, San Diego, CA, USA. **Invited Speaker**

LoPiccolo, K.[*g], Mazza, J. D.[u], Anderson, L.[u], Davaasuren, D., and J.A. Hamilton (2026) Climate gradients drive evolution of seed morphology traits critical for germination and establisment success. North American Forest Genetics Society Meeting, Quebec City, QC, Canada. **Awarded People's Choice for Best Student Presentation & Second Place for Best Student Oral Presentation**

Del Orbe, D.[*g], LoPiccolo, K.[g], Liu, M.[g], and J.A. Hamilton (2026) Spatiotemporal changes in genetic composition of green ash (*Fraxinus pennsylvanica*) following emerald ash borer (EAB) invasion. Poster presentation at North American Forest Genetics Society Meeting, Quebec City, QC, Canada.

Liu, M.[*g], LoPiccolo, K.[g], del Orbe, D.[g], and J.A. Hamilton (2026) Leveraging environmental drivers of ploidy variation in *Fraxinus americana* for the discovery of resilient forest lineages. Poster presentation at

North American Forest Genetics Society Meeting, Quebec City, QC, Canada. **Awarded Second Place for Best Student Poster Presentation**

Mead, A.[*p], Zavala-Paez, M.[p], Budde, K., and J.A. Hamilton (2026) Evolution on two continents: genetic structure and diversity of green ash (*Fraxinus pennsylvanica*) within its native and introduced range. Poster presentation at North American Forest Genetics Society Meeting, Quebec City, QC, Canada.

Gearhart, K. [*u], Zavala-Paez, M. [p], LoPiccolo, K. [*g], and J.A. Hamilton (2026) Climate and soil gradients shape stomatal trait variation in black ash (*Fraxinus nigra* Marsh.). Poster presentation at North American Forest Genetics Society Meeting, Quebec City, QC, Canada.

Hamilton, J.A* (2025) Genomics-driven monitoring for genetic conservation and breeding in forest trees. EvolTREE, Madrid, Spain.

Zavala-Paez, M. [*g], Keller, S., Holliday, J., Fitzpatrick, M.C., and J.A. Hamilton (2025) The role of climate and interspecific gene flow in stomatal evolution across a Populus hybrid zone. EvolTREE, Madrid, Spain.

LoPiccolo, K [*g] and J.A. Hamilton (2025) Assessing range-ride neutral and adaptive genetic diversity within and between populations of black ash (*Fraxinus nigra)*. EvolTREE, Madrid, Spain.

Hamilton, J. (2025) Genomics-driven monitoring for genetic conservation and breeding in forest trees. Invited Speaker at Canadian Forest Genetics Association Meeting, Ottawa, ON, Canada. **Invited Speaker**

Zavala-Paez, M.* [g], Keller, S., Holliday, J., Fitzpatrick, M., and J. Hamilton (2025) The role of climate and interspecific gene flow in stomatal evolution across a Populus hybrid zone. Oral presentation at Forest Genetics 2025, State College, PA, USA **Awarded WFGA William B. Critchfield Award for Best Overall Student Oral Presentation**

Muraguri, S. [*p], Zavala-Paez, M. [g], Mead, A. [p], and J. Hamilton (2025) Shedding light on the genetic architecture of adaptive introgression in a Populus hybrid zone. Oral presentation at Forest Genetics 2025, State College, PA, USA

LoPiccolo, K. [*g], Mazza, J. [u], Moen, A., and J. Hamilton (2025) The evolution of samara morphology differences in Fraxinus nigra. Oral presentation at Forest Genetics 2025, State College, PA, USA

Del Orbe, D.*[g], Zavala-Paez, M.[g], Basalyga, J.[u], and J. Hamilton (2025) The role of telomeres in long-lived trees: are they a biomarker for environmental stress? Oral presentation at Forest Genetics 2025, State College, PA, USA **Awarded the SFTIC Tony Squillace Award for Best Oral Presentation**

Hamilton, J. A.* (2025) Creating the molecular passport for ex-situ collections: enhanced monitoring for conservation and restoration in *Fraxinus.* Forest Stewards Guild – Sustaining Ash Partners Network meeting. **Invited Speaker**

Hamilton, J. A.* (2025) Genomics-driven monitoring for genetic conservation and breeding in forest trees. Online Ash Genomics Meeting, Royal Botanic Gardens – Kew, Centre for Forest Protection, Richmond, UK.

Hamilton, J. A.* (2024) Genetic monitoring for conservation and pest resistance in *Fraxinus*. Future of Brown Ash, Orono, Maine, USA **Invited Speaker**

Hamilton, J. A. (2024) Genomics-driven monitoring for genetic conservation and breeding in forest trees. European Conservation Genetics Meeting, Lausanne, Switzerland

Hamilton, J. A. (2024) Out of the ashes: genetic monitoring for conservation and pest resistance in *Fraxinus.* Waynesboro Tree Care Workshop, Waynesboro, VA, USA **Keynote Speaker**

Hamilton, J. A. (2024) Natural hybrid zones as model systems to investigate the genomic basis for adaptation in forest trees. Harvard Forest, MA, USA **Invited Speaker**

Zavala-Paez, M.*[g], Sutara, B.[u], Bolte, C.[p], Holliday, J., Fitzpatrick, M., Keller, S., and J.A. Hamilton (2024) Exploring cytonuclear interactions and their phenotypic outcomes in a poplar hybrid zone. Presentation at IUFRO World Congress, Stockholm, Sweden

Mead, A.*[p], Zavala-Paez, M[g]., Fitzpatrick, M., Holliday, J., Keller, S., and J.A. Hamilton (2024) Predicting fitness under future climates across *Populus* trees from a natural hybrid zone. Presentation at North American Forest Genetics Society meeting, Oaxaca, Mexico.

Lehrer, M.*[p], Anderson, L.[u], Davaasuren, D., and J.A. Hamilton (2024) Quantifying genetic variation in threatened ash species: insights from ex situ collections. Presentation at IUFRO World Congress, Stockholm, Sweden

Basalyga, J.[u], Zavala-Paez, M.[g], and J.A. Hamilton. 2024. Does environment predict telomere attrition in long-lived forest trees? Poster presented at North American Forest Genetics Society meeting, Oaxaca, Mexico.

Stone, A.[u], Mead, A.[p], Sutara, B.[u], and J.A. Hamilton 2024. Leveraging replicated common garden experiments to quantify phenotypic plasticity in stomatal traits in *Populus.* Poster presented at North American Forest Genetics Society meeting, Oaxaca, Mexico.

LoPiccolo, K.*[g], Lehrer, M[p]., and J.A. Hamilton. 2024. Assessing range-wide genetic diversity for targeted conservation, restoration, and breeding efforts in Black ash (*Fraxinus nigra*). Poster presentation at the North American Forest Genetics Society meeting, Oaxaca, Mexico.

Melton, A.E.*[p], Faske, T., Sniezko, R., Thibault, T., Williams, W., Parchman, T., and J.A. Hamilton. 2024. Genomics-driven monitoring of *Fraxinus latifolia* (Oregon ash) for genetic conservation and EAB-resistance breeding. Oral presentation at the North American Forest Genetics Society meeting, Oaxaca, Mexico.

Hamilton, J. A.* (2023) Hybrid zones as model systems to examine the genomic basis for climate adaptation. EvolTREE, Brasov, Romania **Keynote Speaker**

Hamilton, J. A.* (2023) Natural hybrid zones as model systems to examine the genomic basis for climate adaptation for forest trees. Botanical Society of America, Boise, ID, USA.

Rana Magar, S.*[p], Lindstrom, J. [g], Aherling, M., and J.A. Hamilton (2023) Grassland habitat suitability in North America for long-term restoration success. Botanical Society of America, Boise, ID, USA.

Sutara, B.*[u], Zavala-Paez, M., and J.A. Hamilton (2023) Chloroplast capture in a natural hybrid zone between *Populus trichocarpa* and *P. balsamifera*. Botanical Society of America, Boise, ID, USA.

LoPiccolo, K.*[g], Rana Magar, S.[p], Ahlering, M, and J.A. Hamilton (2023) Population genetic consequences of fragmentation across native prairie remnants: a case study using *Helianthus maximiliani.* Botanical Society of America, Boise, ID, USA.

Lehrer, M.*[p], Anderson, L.*[u], and J.A. Hamilton (2023) Evaluating population-specific variability in reproductive investment in Fraxinus nigra across its North American range. Botanical Society of America, Boise, ID

Lehrer, M.*[p], Anderson, J. [u], and J.A. Hamilton (2023) Beyond the Forest: Preserving range-wide genetic diversity of Fraxinus nigra (Black ash) through ex situ collections. Northern Hardwood Conference, Fredericton, NB, Canada.

Bolte, C.*[p], Phannareth, T., Fitzpatrick, M., Keller, S., Holliday, J., and J.A. Hamilton (2023) Exploring the genomic architecture of porous species boundaries: implications for climatic adaptation and hybrid breeding. Plant and Animal Genome Meeting, San Diego, CA, USA.

Zavala-Paez, M.*[g], Kittilson, J., Holliday, J., and J.A. Hamilton (2023) Leveraging whole genome sequencing data to measure telomere length in plants. Plant and Animal Genome Meeting, San Diego, CA, USA.

Zavala-Paez, M.*[g], Sutara, B. [u], Bolte, C. [p], Holliday, J., Fitzpatrick, M., Keller, S., and J.A. Hamilton (2023) Exploring cytonuclear interactions their phenotypic outcomes in a poplar hybrid zone. Southern Forest Tree Improvement Cooperative, Knoxville, TN, USA.

Hamilton, J. A.* (2022) Leveraging the conservation genetics toolkit: applying genomic and phenotypic data to rare species conservation and management. Hawaii Rare Plant Genetics Workshop (Virtual)

Hamilton, J. A.*, Ledig, F. T., Hodgkiss, P., Di Santo, L[g], and J. Wright (2021) Genomics for rare species conservation: teasing apart evolutionary history and adaptation. Invited Schatz Symposium at the Southern Forest Tree Improvement Conference (Virtual)

INVITED SEMINARS

Donald Danforth Plant Science Center, St. Louis, MO (2026 – upcoming)
North American Forest Genetics Society, Quebec City, Canada (2026) ***Invited keynote speaker***
Royal Botanic Gardens – Kew, London, UK (2026)
University of Sheffield, Sheffield, UK (2026)
University of Memphis, Memphis, TN (2026)
Trent University, Peterborough, Canada (2026)
Oklahoma State University, Stillwater, OK (2025)
Canadian Forest Genetics Association, Ottawa, Canada (2025) ***Invited speaker***
Forest Stewards Guild - Sustaining Ash Partners Network (2025) ***Invited speaker***
SUNY-Binghamton BGSO Symposium, Binghamton, NY (2025) ***Invited keynote speaker***
Future of Brown Ash Meeting, Orono, ME (2024) ***Invited speaker***
Waynesboro Tree Care Workshop, Waynesboro, VA (2024) ***Keynote speaker***
Harvard Forest, Petersham, MA (2024)
Canadian Forest Service – Laurentian Forestry Centre Lectures Series, Quebec City, Canada (2024)
Oak Ridge National Lab – Plant Microbe Interfaces Group, Knoxville, TN (2023)
Purdue University, West Lafayette, IN (2023)
Southern California Botanic Symposium (2023) ***Invited symposium speaker***
Pennsylvania State University – Plant Sciences Seminar Series (2023)
EVOLTREE Conference, University of Brasov, Romania (2023) ***Keynote speaker***
APCAW - Emerald Ash Borer and Ash Resilience Research Webinar ***Speaker and panelist***
Pennsylvania State University – Plant Biology Program (2023)
Virginia Commonwealth University, Richmond, VA (2023)

Forest Resources Association – Appalachian Region (2022)
Southern Forest Tree Improvement Conference (2021 – Virtual) ***Invited symposium speaker***
Pennsylvania State University, State College, PA (2020)
University of Müenster, Müenster, Germany (2020)
Michigan State University, East Lansing, MI (2019)
University of Missouri, Columbia, MO (2019)
Western Forest Genetics Association Meeting (2019) ***Plenary speaker***
University of Arizona, Tucson, AZ (2019)
The State of Biodiversity, San Diego Natural History Museum, San Diego, CA (2019) ***Panelist***
University of California, Davis, CA (2018)
Manitoba's Ecological Restoration Workshop, Winnipeg, MB, Canada (2018)
South Dakota State University, Brookings, SD (2018)
University of Manitoba, Winnipeg, MB, Canada (2018)
CPB/CBA Western Regional Meeting, Winnipeg, MB (2017) ***Keynote speaker***
Minnesota Phenology Network Annual Meeting, Itasca, MN (2017) ***Keynote speaker***
Torrey Pines State Reserve, La Jolla, CA (2017)
Torrey Pines Golf Course, La Jolla, CA (2017)
Northern Arizona University, Flagstaff, AZ (2017)
US Fish & Wildlife Service – Advanced Topics in Conservation Genetics Webinar (2016)
USGS Northern Prairie Research Station, Jamestown, ND (2016)
University of Winnipeg, Winnipeg, MB, Canada (2016)
Nature Conservancy of Canada – Manitoba, Winnipeg, MB, Canada (2016)
Pacific Rim Tonewoods, Bellingham, WA (2016)
University of Minnesota, Minneapolis, MN (2016)
Santa Barbara Botanic Garden, Santa Barbara, CA (2016)
North Dakota State University – ECS Greenbag Seminar (2016)
University of Minnesota – Duluth, MN (2015)
Northern Central Research Station USDA Forest Service – Grand Rapids, MN (2015)
University of California – Davis, CA (2015)
California State University, Sacramento, CA (2014)
North Dakota State University, ND (2014)
University of California - Merced, CA (2014)
University of Lethbridge, AB, Canada (2014)
University of Alberta, AB, Canada (2014)
University of Winnipeg, MB, Canada (2012)
University of British Columbia, BC, Canada (2012)
University of Manitoba, Winnipeg, MB, Canada (2011)
University of Fribourg, Fribourg, Switzerland (2011)

AWARDS

2025-2026	Huck Institutes of the Life Sciences Leadership Fellow, Penn State ($30,000)
2025	Molecular Ecology – Top Viewed Article: Bolte et al. 2024
2024	College of Ag - High-Impact Research Publication Award: Keagy et al. 2024
2019	3rd highest number of citations in 2016 – Conservation Biology
2018	Top Reviewer for Molecular Ecology
2016	Annual Alumnus Speaker Award – The University of Winnipeg
2016	Jim Pojar Award from the Bulkley Valley Research Centre (Nominated)
2014	Top Reviewer for Molecular Ecology
2011	Canadian Society for Ecology and Evolution Travel Award ($500)
2011	UBC Four Year Doctoral Fellowship ($16,000)
2010	Scholarship to Summer Institute in Statistical Genetics ($1200)

2010	2010 Faculty of Forestry Research Poster Event ($100)
2010	UBC Four Year Doctoral Fellowship ($16,000 – declined)
2008-2011	UBC Forestry Strategic Recruitment Fellowship ($16,000)
2008-2010	NSERC Canada Graduate Scholarship ($105,000)
2005	Queen's Graduate Student Bursary ($3,000)
2005	Queen's Conference Travel Award ($400)
2004	Scholarship to Summer Institute in Statistical Genetics ($800)
2002-2004	Queen's Graduate Award ($12,000)
2003	Queen's Graduate Student Bursary ($2,800)
1997	Florence D. Methereal Scholarship ($1,000)
1997	Public Works Employees Scholarship ($350)
1997	University of Winnipeg Entrance Scholarship ($800)

TEACHING EXPERIENCE

Instructor of Record	
Conservation Genetics (Undergraduate, FOR/WFS 431 - PSU)	2022-
Conservation Genetics (Graduate, FOR 530 - PSU)	2022-
General Ecology (North Dakota State University)	2017-2020
Environment and Adaptation (North Dakota State University)	2016, 2019
Plant Physiology (North Dakota State University)	2016-2018
Genetic Analysis of Populations (University of Alberta – co-taught)	2014
Teaching Assistant	
Forest Plant Biology I & II (University of British Columbia)	2008-2010
Population and Evolutionary Ecology (Queen's University)	2003-2005
Plant Reproduction Biology Field Course (Queen's University)	2004
Introductory Biology of Organisms (Queen's University)	2003-2005
Conservation Biology (Queen's University)	2002-2003
Mendelian and Molecular Genetics (Queen's University)	2002-2003
Laboratory Demonstrator	
Principles of Ecology (University of Winnipeg)	2000-2002
Biology of Vascular Plants (University of Winnipeg)	2001-2002
Invited Guest Lecturer	
Advances in Ecology (PSU)	2025
Emerging Issues in Plant Sciences (PSU)	2025
Plant Biology: Plant Communication & Growth (PSU)	2022, 2023, 2025
International Agriculture and Development (PSU)	2021
Conservation Biology (North Dakota State University)	2015
Population Biology Core (University of California – Davis)	2015
Plant Ecology (University of Alberta)	2013
Genetic Analysis of Populations (University of Alberta)	2013
Conservation Biology (Queen's University)	2004

SUPERVISORY EXPERIENCE

Postdoctoral Scholars

2026 – present	Dr. Ivan De La Cruz Arguello (joining November)
2026 – present	Dr. Michelle Zavala-Paez
2025 – 2026	Dr. Sammy Muraguri
2023 – 2026	Dr. Alayna Mead, Postdoctoral Scholar – University of Freiberg, Germany
2023 – 2024	Dr. Anthony Melton, Assistant Professor – University of Montevallo
2022 – 2024	Dr. Constance Bolte, AAAS Science and Technology Policy Fellow – NSF

2022 – 2024 Dr. Melissa Lehrer, Teaching Assistant Professor – University of Pittsburgh
2022 – 2024 Dr. Santosh Rana, Assistant Professor – Youngstown State University
2020 – 2021 Dr. Joseph Braasch, MESA Director – Mendocino College
2018 – 2019 Dr. Pamela Puppo, Assistant Professor – Marshall University

Graduate Students

2026 – present Emily Scott (MS Student, Ecology – PSU)
2025 – present Muqing Liu (PhD student, Ecology – PSU)
2024 – present Diego del Orbe Matos (PhD student, Plant Biology – PSU)
2022 – present Kyra LoPiccolo (PhD candidate, Plant Biology – PSU)
2021 – 2025 Michelle Zavala-Paez (PhD, Ecology – PSU)
2019 – 2022 Kate Volk (MSc, Environmental and Conservation Sciences – NDSU)
2019 – 2022 Jessica Lindstrom (MSc, Environmental and Conservation Sciences – NDSU)
2017 – 2019 Zebadiah Yoko (MSc, Environmental and Conservation Sciences – NDSU)
2016 – 2021 Lionel Di Santo (PhD, Environmental and Conservation Sciences – NDSU)

Undergraduate Students (*peer-reviewed publication)

Pennsylvania State University

2026 – present Ethan Sheldon
2026 – present Pete Stanko
2026 – present Dash Nealon
2026 Kay Henninger
2026 Rosalie Montemayor
2025 – 2026 Kingston Gearhart
2024 – 2026 Jacob Mazza*
2023 – 2026 Lucia Anderson*
2025 Raquel Gottlieb
2023 – 2025 Alden Stone
2023 – 2024 Dane Beller
2023 – 2024 Amber Truesdale
2022 – 2024 Jordan Basalyga
2022 – 2023 Bridget Reheard
2022 – 2023 Brianna Sutara*
2022 CJ Hicks

North Dakota State University

2020 – 2021 Alex Hass
2020 – 2021 David Hainlen
2020 – 2021 Jackson Gentile
2019 – 2020 Bryan Carlton
2019 – 2020 Cameron Klooster
2019 – 2020 Anne Keller
2019 – 2020 Roxanne Vistada
2018 – 2020 Suemeng Vang
2018 – 2020 Monica Polgar*
2017 – 2020 Storm Nies*
2016 – 2020 Zach Tarble*
2018 – 2019 Kate Volk*
2017 – 2018 Mercedes Hoffner*
2017 – 2018 Samuel Hyland
2017 – 2018 Liberty Nguyen
2016 – 2018 Stephen Johnson
2015 – 2017 Alexis Pearson
2015 – 2017 Zoe Portlas*
2016 – 2017 Marissa Spear
2016 – 2017 Andy Fuchs
2015 – 2016 Aidan Resh
2015 – 2016 Tyler Stadel

Research Technologists

2026 – present Paige Brewer
2025 – present Austin Parr
2024 – 2026 Alexander Moen
2023 – 2024 Amanda Penn
2022 – 2023 Nadia Garzione
2021 – 2023 Maureen Mailander

High school Students

2018 Naomi Hegwood (North Dakota Governors School)

Committee Member

Joy Love (PhD – PSU, Biology)
Mary McCafferty (PhD – PSU, Ecology)
Marilena Papavassiliou (PhD – PSU, Bioinformatics and Genomics)
Alisa Chernikova (PhD – PSU, Plant Biology)
Joanne Kim (MS – PSU, Agricultural and Environmental Plant Sciences)
Eleanna Vasquez-Cerda (PhD – PSU, Plant Biology)
Yuxin Luo (PhD – PSU, Plant Biology)
Anna Calderon (PhD – PSU, Biology)
Denise Alving (PhD – PSU, Forestry)
Nathan LaDuke (MS – PSU, Forestry - graduated)
Elizabeth Schousek (MS – PSU, Plant Biology - graduated)
Stephanie Szarmach (PhD – PSU, Biology - graduated)
Isabella Petitta (MS – PSU, Ecology - graduated)
Nicolas Locatelli (PhD – PSU, Biology - graduated)
Sydney Bird (MS – PSU, Ecology - graduated)
Andrew Miles (MS – PSU, Plant Biology - graduated)
Justin Waraniak (PhD – NDSU, Environment and Conservation Sciences - graduated)
Carlos Federico Velasquez Villegas (MS – NDSU, Plant Sciences)
Meredith Swanson (MS – NDSU, Plant Sciences - graduated)
Maria Gabriela Tobar Pinon (MS – NDSU, Plant Sciences - graduated)
Lauren Frazee (PhD – Rutgers, Ecology & Evolution - graduated)

MEDIA COVERAGE

- 2026 – Penn State Research News – Adaptation and a 'Noah's Ark for trees' offer hope for endangered black ash - https://www.psu.edu/news/research/story/adaptation-and-noahs-ark-trees-offer-hope-endangered-black-ash?utm_audience=Faculty&
- 2026 – In Defense of Plants (Podcast) – Trees and their hybrids in a changing world - https://www.indefenseofplants.com/podcast/2026/4/22/ep-578-trees-amp-their-hybrids-in-a-changing-world
- 2025 – Penn State Research News – Genetic teamwork may be the secret to climate-resilient plants, researchers find - https://www.psu.edu/news/research/story/genetic-teamwork-may-be-secret-climate-resilient-plants-researchers-find
- 2025 – La Semaine Verte (TV) – Emerald ash borer: the response through genetics - https://ici.radio-canada.ca/tele/la-semaine-verte/site/segments/reportage/2201356/genetique-frenes-noir-agrile [translated from French]
- 2025 – CBC News – Race against time to save the ash tree - https://ici.radio-canada.ca/info/long-format/2200107/course-frene-agrile-recherche [translated from French]
- 2025 – Huck Students impress at Forest Genetics Conference – Huck Institute of the Life Sciences August Newsletter - https://www.huck.psu.edu/graduate-programs/plant-biology/news/huck-students-impress-at-forest-genetics-conference
- 2025 – National forest genetics groups meet at Penn State for annual conference – Penn State Outreach News - https://www.psu.edu/news/outreach/story/national-forest-genetics-groups-meet-penn-state-annual-conference
- 2025 – Huck announces 2025-26 Leadership Fellows. Penn State Faculty and Staff News - https://www.psu.edu/news/faculty-and-staff/story/huck-announces-2025-26-leadership-fellows
- 2025 – Penn State Research News - Isolated Torrey pine populations yield insights into genetic diversity –https://www.psu.edu/news/research/story/isolated-torrey-pine-populations-yield-insights-genetic-diversity
- 2025 – The County, Naturally w/ Pamela Stagg (Radio Interview)

- 2025 – NIFA National News Bulletin – 021225 - https://content.govdelivery.com/accounts/USDANIFA/bulletins/3d1eebd
- 2025 – Penn State Research News - Ash tree variability may offer restoration path post-beetle decimation – https://www.psu.edu/news/research/story/ash-tree-variability-may-offer-restoration-path-post-beetle-decimation
- 2024 – Penn State Research News - Discovery of a hybrid lineage offers clues to how trees adapt to climate change –- https://www.psu.edu/news/research/story/discovery-hybrid-lineage-offers-clues-how-trees-adapt-climate-change/
- 2024 – Penn State Research News - Surviving ash trees may hold key to saving multiple species of the trees - https://www.psu.edu/news/research/story/surviving-ash-trees-may-hold-key-saving-multiple-species-trees/
- 2024 – PSU Ag Science Magazine - Fostering Forests 'Out of the Ashes' –- https://agsci.psu.edu/magazine/articles/2024/spring/fostering-forests
- 2024 – The Nature Conservancy - Trees in Peril - https://www.nature.org/en-us/what-we-do/our-priorities/tackle-climate-change/climate-change-stories/trees-in-peril/?vu=treesinperil
- 2022 – Penn State Research News - Torrey pine genetic research may benefit efforts to save chestnut, ash trees https://www.psu.edu/news/research/story/torrey-pine-genetic-research-may-benefit-efforts-save-chestnut-ash-trees/
- 2022 – Penn State Research News - Geneticists close to grasping how plant communities may adapt to change https://www.psu.edu/news/research/story/geneticists-close-grasping-how-plant-communities-may-adapt-climate-change/
- 2021 – ArbNet Turns Ten! - https://mailchi.mp/mortonarb/xlbgago6wr-325551
- 2020 – The Union Recorder – Lockerly joins nationwide poplar project (https://www.unionrecorder.com/news/lockerly-joins-nationwide-poplar-project/article_f6fcdf96-17aa-11eb-99d8-cf106f802d58.html)
- 2020 – Northwest Missouri State News – New trees adding diversity, research to Missouri Arboretum (https://www.nwmissouri.edu/media/news/2020/10/21arboretumupdate.htm)
- 2020 – The Spectator – Trees: a study on the root of climate change (https://www.spectatornews.com/campus-news/2020/10/trees-a-study-on-the-root-of-climate-change/)
- 2020 – UWEC News – UW-Eau Claire gardens are part of National Science Foundation study (https://www.uwec.edu/news/news/uw-eau-claire-gardens-are-part-of-national-science-foundation-study-4391/)
- 2020 – WDAY/InForum – NDSU gets National Science Foundation grant to study what trees are really telling us (https://www.inforum.com/news/science-and-nature/6563908-NDSU-gets-National-Science-Foundation-grant-to-study-what-trees-are-really-telling-us)
- 2020 – ArbNet Quarterly Newsletter July: ArbNet Partners on National Science Foundation-Funded Project (https://mailchi.mp/mortonarb/xlbgago6wr-324378)
- 2020 – NDSU researchers grow a forest (https://www.ndsu.edu/news/view/detail/58738/)
- 2020 – The importance of quantitative trait differentiation in habitat restoration (https://botany.one/2020/05/the-importance-of-quantitative-trait-differentiation-in-habitat-restoration)
- 2020 – Seeds of Change: Ensuring the Future for Healthy Prairies (https://blog.nature.org/science/2020/05/05/ /seeds-of-change-ensuring-the-future-for-healthy-prairies/)
- 2018 – Field research helps student find her passion (https://www.ndsu.edu/experience/field_research_helps_student)
- 2017 – Sierra: Iconic and almost extinct (https://sierraclub.org/sierra/iconic-and-almost-extinct)
- 2017 - The Spectrum: The trees they need a savin' (http://ndsuspectrum.com/trees-need-savin/)

- 2017 – NDSU research helping save rare, iconic trees (https://www.ndsu.edu/news/view/detail/30166/)
- 2017 Minnesota Phenology Network - Citizen Science Opportunity (http://mailchi.mp/c9ee5282c08d/c8b9i9aq3m)
- 2016 Prairie Public Radio – NPR – Wood for High End Guitars (http://www.prairiepublic.org/radio/mainstreet?post=68474)
- 2016 KVRR Morning News Live (http://www.kvrr.com/news/local-news/Using-Genetics-To-Make-The-Perfect-Guitar/42402662)
- 2016 - NDSU scientist uses genetics to identify wood for high-end guitars (https://www.ndsu.edu/news/banner_stories/jillhamilton/)
- 2014 - Interview on "The Modern Forest" blog (www.blogs.ubc.ca/aitkenlab)
- 2011 - Profiled in Canadian Women in Science and Engineering – Prairies (www.cwse-prairies.ca)

PROFESSIONAL SERVICE

External to the University

- 2026 – present Symposium Co-Organizer – 2027 IUFRO Forestt International Conference, Metz, France: 'Conservation and sustainable management of forest genetic resources for biodiversity, climate resilience, and society'
- 2026 – present Session Co-Chair – EvolTREE 2027 – Conservation Genomics, Marburg, Germany
- 2026 – present Co-Editor (w/ Dr. Dave Coltman, Western University, London, ON) – Special Issue in Molecular Ecology 'From Genotype to Phenotype: Where Molecular Ecology Meets Quantitative Genetics'
- 2026 – Dissertation Review – Deakin University, Australia
- 2026 – Adhoc reviewer – DOE-EPSCoR
- 2026 – NSF Panelist – Directorate of Biological Sciences – Division of Environmental Biology
- 2026 – Scientific Committee – North American Forest Genetics Society Bi-Annual Meeting
- 2025 – Conference Lead Organizer – Forest Genetics 2025: joint meeting between the Western Forest Genetics Association, Southern Forest Tree Improvement Cooperative and North Forest Genetics Association – State College, PA (5-day conference, ~170 people)
- 2025 – Grant Review – EvolTREE, USDA-McIntire-Stennis (SUNY-ESF), DOD-Strategic Environmental Research and Development Program (SERDP)
- 2025 – Special Issue Co-Editor – Global Ecology and Conservation – The impact of introgressive hybridization on species adaptive capacity in the Anthropocene
- 2024 – Session Co-Organizer – IUFRO World Congress – The impact of introgressive hybridization on adaptive capacity of forest trees in the Anthropocene
- 2024 – NSF Ad hoc Reviewer
- 2023 – present North American Forest Genetics Society – Multi-National Research Collaborations (US Lead)
- 2023 – present – President, Western Forest Genetics Association
- 2023 – NSF Panelist – Evolutionary Processes, Ad hoc Reviewer
- 2022 – North American Forest Genetics Society – Conservation and Restoration Breakout Co-Lead
- 2022 – NSF Panelist – Evolutionary Processes
- 2021 – Botany – PLANTs (Preparing Leaders and Nurturing Tomorrow's Scientists) Mentor
- 2021 – Forest Genetics Student Symposium – Career Perspectives Panel
- 2021 – Forest Genetics Student Symposium – Scientific Program Committee
- 2021 – NSF Panelist – Evolutionary Processes
- 2021 – Dissertation Review, University of Western Australia, Australia
- 2021 – Dissertation Review, Murdoch University, Australia

- 2020 – NATURE (Nurturing American Tribal Undergraduate Research and Education) Summer Camps
- 2019 – 2023 – Elected Vice President of Western Forest Genetics Association (President-Elect)
- 2019 – Botanical Society of America, Genetics Section, Award Review
- 2019 – Co-organizer Workshop 'Towards a Unified Research Agenda on Local Adaptation' at University of Minnesota in collaboration with The Nature Conservancy
- 2019 – 2021- Board Member: Longspur Prairie
- 2018 – NATURE (Nurturing American Tribal Undergraduate Research and Education) Sunday Academy: Adaptation and Climate Change
- 2018 – North Dakota Governors School – High School Student Mentor
- 2017 – 2025 - Associate Editor – Plant Ecology and Diversity
- 2017 – 2021- Dakota Women in Conservation
- 2017 – 2021 - Ecological Society of America: Restoration Ecology
- 2016 – NSF Panelist – Doctoral Dissertation Improvement Grant Panel
- Consultant: Pacific Rim Tonewoods
- Consultant: BBC – Green Planet Series

Internal to the University

- 2026 – present – Associate Director, Plant Institute
- 2026 – present – PlantWorks – Penn State Plant Innovation Complex Launch Team
- 2026 – present – Faculty Search Committee Member, Department of Biology, Eberly College of Science, Penn State
- 2026 – PSU Lead, Plant Resilience Institute Huck Institutes of the Life Sciences Joint Symposium
- 2026 – Grant Review – Seed Grants, Huck Institute of the Life Sciences, Penn State
- 2025 – 2026 – Lead Organizer – Plants for People and the Planet: Plant Innovation Seminar Series
- 2025 – present – Member, College of Agricultural Sciences Research Advisory Committee for the Office for Research and Graduate Education
- 2025 – Award Review – College of Agricultural Sciences, Paul Hand Award for Graduate Student Achievement
- 2025 – Grant Review – Strategic Networks and Initiatives Program (SNIP), College of Agricultural Sciences, Penn State
- 2025 – Grant Review – Seed Grants, Huck Institute of the Life Sciences, Penn State
- 2024 – present – Member, Nominations and Elections Committee, College of Agricultural Sciences
- 2024 – present – Chair, Graduate Program Committee – Department of Ecosystem Science and Management
- 2024 – 2025 – Faculty Search Committee Member, Department of Ecosystem Science & Management
- 2023 – present – Member, Promotion and Tenure Committee, Department of Ecosystem Science & Management
- 2023 – 2024 – Faculty Search Committee Member, Department of Plant Pathology and Environmental Microbiology
- 2022 – present – Admissions Committee Member, Ecology IGDP Graduate Program
- 2022 – 2023 – Graduate Reform Committee Member, Department of Ecosystem Science and Management
- 2021 – 2022 – Faculty Search Committee Member, Department of Ecosystem Science & Management
- 2017 – 2021 – NDSU Environment and Conservation Steering Committee
- 2017 – 2021 – Co-Organizer: Behaviour Ecology & Evolution Research Seminars, NDSU
- 2016 – 2017 – NDSU Biological Sciences Seminar Series (Organizer)

- 2015 – 2021 – NDSU Conservation Biology Curriculum Committee
- 2015 – 2021 – NDSU Biological Sciences Faculty Affairs Committee
- 2012 – 2014 – Biology Postdoctoral Representative – Departmental Council, University of Alberta
- Judge R.E. Peter Biology Conference 2013, PDF Research Day 2012, CSEE 2012 and 2015
- 2012 Undergraduate Diversity Mentoring – Society of Evolutionary Biology

Manuscript Reviewer

Molecular Ecology	New Phytologist
Tree Genetics and Genomes	Plant Biology
Ecology and Evolution	Global Change Biology
Journal of Evolutionary Biology	Functional Ecology
Restoration Ecology	Plant Genome
Plant Species Biology	Silvae Genetica
Scientific Reviews	G3: Genes, Genomes, Genetics
Biology Letters	Nature Communications
Proceedings of the Royal Society B	Global Ecology and Conservation
Plants, People & Planet	Trends in Ecology and Evolution
Evolutionary Applications	American Journal of Botany
Journal of Applied Ecology	Journal of Biogeography
PLoSONE	Genetics
Conservation Genetics	Acta Biologica Cracoviensia Series Botanica
Heredity	

Ad hoc reviewer

NSF CAREER	NSF Dimensions in Biodiversity Program
NSF Plant Genome Research Program	NSF DEB-Evolutionary Processes
NSF DEB-Evolutionary Ecology	NSF IOS-Integrative Ecological Physiology
DOE-EPSCoR	North American Congress in Conservation Biology
LCCMR (Minnesota)	USDA McIntire-Stennis (SUNY-ESF)
AgreenSkills+ Fellowships (France)	Netherlands Organisation for Scientific Research
NSERC (Canada)	EvolTREE (Europe)
Nordic Forest Research (Sweden)	Fonds de recherché Nature et technologies (Quebec)

DOD-SERDP (Department of Defense Strategic Environmental Research and Development Program)

Memberships

Western Forest Genetics Association	North American Forest Genetics Association
Botanical Society of America	Society for Conservation Biology
Society for the Study of Evolution	Canadian Society of Ecology and Evolution
Ecological Society of America	American Society of Naturalists

Manitoba Association of Plant Biologists