

# Monia Haselhorst

## Curriculum Vitae

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## Education

**Ph.D.**, Program in Ecology, Department of Botany, University of Wyoming (2017). Advisor: Dr. C. Alex Buerkle. Dissertation title: Genomic and geographic diversity patterns in the genus *Picea* in western North America.

**M.S.**, Biology, Department of Plant Ecology, Uppsala University, Sweden, (2007). Advisor: Dr. Brita Svensson. Thesis Title: Can Management of Hay-Meadows Cause Speciation? A demographic and genetic study of early and late flowering morphs of *Succisa pratensis*.

## Professional experience

### Research

**Ph.D research** (2008–2017), University of Wyoming. *Genomic and geographic diversity patterns in the genus Picea in western North America.*

**Field assistant** (2011), University of Wyoming. *As I collected seeds for a sunflower project, I also assisted in the “Seeds of success” project led by Dr. Kristina Hufford in collaboration with the BLM in Wyoming. This project aimed to help address the significant need for locally sourced and ecologically appropriate plant material for use in restoration and reclamation on public lands.*

**Lab technician** (spring & summer 2008), University of Wyoming, Dr. Cynthia Weinig lab. *I was part of starting up a large experiment in quantitative genetics of Brassica rapa. I coordinated research projects and trained undergraduate students in lab protocols, growth chamber procedures and field work.*

**M.S. research** (summer 2006–spring 2007), Uppsala University, Sweden. *Genetic and phenotypic consequences of meadow management.*

**Field assistant** (summer 2005), Uppsala University, Sweden. *I assisted a doctoral student in her plant ecology project investigating how plant demography is affected by traditional hay-mowing at Gotland, Sweden.*

### Teaching

**Assistant Professor of Biological Sciences** (2017–present), Northwest College, Powell WY. Main teaching responsibilities: General Biology, The Biology of Plants & Fungi, Forest Management, and Introduction to GIS.

**Academic Professional Lecturer (Instructor of record) & lab coordinator** (2016–2017), University of Wyoming. Course: The Biology of Plants & Fungi; enrollment: 96; level: sophomore. *Beyond the lectures and lab coordination, I supervised and mentored four teaching assistants (TA), of which three were first year graduate students. During our weekly meetings, I integrated lab instructions with pedagogical education to strengthen each TA’s ability to teach their respective lab sections.*

**Teaching assistant** (Spring 2016), University of Wyoming.  
Course: Computational Biology; enrollment: 25; level: senior/graduate.

**Instructor of record** (Fall 2015), University of Wyoming.  
Course: Genetics; enrollment: 118; level: junior. *I developed learning outcomes, syllabus, and course materials.*

**Laboratory instructor** (Spring 2015), University of Wyoming.

Course: Current Issues in Biology; enrollment: 2 sections x 24; level: freshman, non-majors.

**Guest lecturer in plant evolution** (Fall 2014), University of Wyoming.

Course: The Biology of Plants and Fungi; enrollment: 96; level: sophomore.

**Laboratory instructor** (Fall 2009, 2014), University of Wyoming.

Course: The Biology of Plants and Fungi; enrollment: 2 sections x 24; level: sophomore.

**Guest lecturer in population genetics** (Spring 2014), University of Wyoming.

Course: Genetics; enrollment: 150; level: junior.

**Discussion instructor** (Spring 2011, 2014), University of Wyoming.

Course: Genetics; enrollment: 2 sections x 25; level: junior.

**Teaching assistant** (Spring 2010 & Fall 2010, 2011, 2013), University of Wyoming.

Course: Evolutionary Biology; enrollment: 40; level: junior/senior.

**Laboratory instructor** (Spring 2012), University of Wyoming.

Course: Plant Physiological Ecology; enrollment: 20; level: senior/graduate.

## Professional Development and Leadership in Teaching & Learning

**Director of the Teaching & Learning Center (TLC)** (part-time, 2018–present), Northwest College, Powell WY. *I have revised the mission and goals for the TLC; facilitated workshop series on teaching effectively with technology, active learning strategies, and how to create self-regulated learners; coordinated book reading clubs; co-facilitated seminars and workshops on inclusion, equity and diversity, ESL (English as a second language) student issues, knowledge surveys, and experiential course design. TLC website: [www.nwc.edu/academics/tlc](http://www.nwc.edu/academics/tlc).*

**External Mentor** (2018–present), University of Wyoming Science Initiative, Learning Actively Mentoring Program. *After starting my position at NWC, I continued the collaboration and mentorship within UW LAMP (see below).*

**Academic Professional Lecturer** (temporary AY16/17), University of Wyoming Science Initiative, Learning Actively Mentoring Program. *I was co-directing the Learning Actively Mentoring Program (LAMP) including developing program goals, assisting with LAMP Fellows monthly meetings and curriculum planning sessions, planning a state-wide teaching & learning summit, and planning spring 2017 undergraduate LAMP scholars programming and activities. During spring 2017, I coordinated four lab sections in the non-major course ‘Current Issues in Biology’ (LIFE1003), and I developed written instructions and general materials of active learning activities for large Life Sciences courses. I coordinated with the permanent faculty who lecture in these classes on the initial implementation and assessment of these active learning activities.*

**Curriculum Development** (2015, 2016), Life Sciences Program, University of Wyoming. *I developed new curricula, including new learning outcomes, assignments, assessments and lab/discussion activities, for the courses Genetics (LIFE3050) and The Biology of Plants & Fungi (LIFE2023).*

**John P. Ellbogen Summer Faculty Institute** (May 2016), Ellbogen Center for Teaching & Learning, University of Wyoming. *The institute provided me with a theoretical grounding in evidence-based, nationally recognized active and engaged learning pedagogies; key strategies and skills for integrating active and engaged learning into my course(s); and hands-on development support. Throughout the four-day program, the other participants and I built a strong peer cohort as we shared strategies, challenges, and successes related to active and engaged learning.*

**Life Sciences Program Faculty Meetings** (Fall 2015 & Spring 2016), University of Wyoming. *I was part of the revision and development of student learning outcomes for all courses within the Life Sciences Program to align with the Vision and Change (American Association for the Advancement of Science) core concepts and competencies. Moreover, every other week, I participated in the program’s brownbag seminar series on teaching & learning.*

**Active Learning Workshop for faculty** (Fall 2015), University of Wyoming Science Initiative, Learning Actively Mentoring Program. *The goal with this workshop was to participate in an active learning experience as students. The basic concept was “learning by doing” and it gave us the opportunity to become “scientists” working in teams to resolve a real world problem in partnership with NASA.*

**K-16 Life Sciences Summit** (2013, 2015 & 2016), Life Sciences Program, University of Wyoming. *These yearly meeting provides educators an opportunity to reflect on students transition from high school to higher education, build community amongst educators at all levels, and to discuss and further develop skills in teaching & learning.*

## Grants, Fellowships & Awards

**Environmental Education Grant**, Northwest College, Powell WY (2019; \$2,500).

**Environmental Education Grant**, Northwest College, Powell WY (2018; \$5,000).

**Summer Institute Fellowship in Active Learning**, University of Wyoming Ellbogen Center for Teaching & Learning (2016; \$500).

**Promoting Intellectual Engagement (PIE) in the first year award** (2016; a chocolate mousse pie) *Teachers are nominated for this award by students.*

**Aven Nelson Fellowship in Systematic Botany** (2016; \$2,000)

**Outstanding Teaching Assistant**, Department of Botany (2015; \$200)

**Wyoming Agricultural Experimental Station Competitive Grant (USDA)**, co-PI (2012; \$60,000)

**Aven Nelson Fellowship in Systematic Botany** (2011; \$2,500)

**Women in Biology, Ecology and Education Fellowship Fund Award** (2011; \$1,000)

**H.T. Northen Summer Fellowship in Botany** (2010; \$2,500)

**UW-NPS Research Center stipend** (2010; \$4,692)

**Shoshone National Forest stipend** (2009; \$2,000)

**Wyoming Native Plant Society, Markow Scholarship** (2009; \$500)

**John W. Marr Memorial Ecology Fund Award** (2009; \$300)

**Program in Ecology Graduate Fellowship**, University of Wyoming (2008; \$19,125)

## Publications

**Haselhorst, M.S.H.**, Parchman, T. & Buerkle, C.A. (Accepted) Genetic evidence for species cohesion, substructure, and hybrids in spruce. *Molecular Ecology*.

**Haselhorst, M.S.H.** & Buerkle, C.A. (In prep) Contemporary population genetics predict that co-occurring spruce species in the southwestern United States will respond differently to future climates.

**Haselhorst, M.S.H.** & Buerkle, C.A. (2013) Population genetic structure of *Picea engelmannii*, *P. glauca* and their previously unrecognized hybrids in the central Rocky Mountains. *Tree Genetics & Genomes*, 9, 699–681.

**Haselhorst, M.S.H.** & Buerkle, C.A. (2011) Unexpected Distribution of Spruce Species and their Hybrids in Wyoming Mountain Ranges. *Castilleja* (publication of the Wyoming Native Plant Society), 30, No. 3.

**Haselhorst, M.S.H.**, Edwards, C.E., Rubin, M.J. & Weinig, C. (2011) Genetic architecture of life-history traits and environment-specific tradeoffs. *Molecular Ecology*, 20, 4042–4058.

Edwards, C.E., **Haselhorst, M.S.H.**, McKnite, A.M., Ewers, B.E., Williams, D.G. & Weinig, C. (2009) Genotypes of *Brassica rapa* respond differently to plant-induced variation in air CO<sub>2</sub> concentration in growth chambers with standard and enhanced venting. *Theoretical and Applied Genetics*, 119 (6) 991–1004.

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## Presentations

Seeley, J., & **Haselhorst, M.** (2018). Promoting a campus-wide culture of learners through SoTL. *The International Society for the Scholarship of Teaching & Learning (ISSOTL)*. Bergen, Norway. Talk.

Watson, R., Moon, K., **Haselhorst, M.**, & Nuhfer, E. (2017). An Extended holistic professional development experience. *Original Lilly Conference on College Teaching*. Oxford, OH. Poster.

**Haselhorst, M.**. Examples of active learning methods in a large enrollment course. (2016) *University of Wyoming K-16 Science Summit*. Casper, WY. Invited panel presentation and discussion.

**Haselhorst, M.** & Moore, L. Unique approaches to summative assessments in undergraduate education. (2015) *University of Wyoming Life Science Program Instructor Brown Bag Seminar*. Laramie, WY. Invited talk.

**Haselhorst, M.S.H.** & Buerkle, C.A. Hybridization in spruce: a major gap in our knowledge of the biodiversity in the West. (2013) *University of Wyoming College of Arts & Sciences Board of Visitors Annual Meeting*. Laramie, WY. Invited talk.

**Haselhorst, M.S.H.** Geographic and ecological contexts of divergence and hybridization in the spruces of western North America. (2013) *University of Wyoming Program in Ecology*. Laramie, WY. Talk.

**Haselhorst, M.S.H.** & Buerkle, C.A. Population genetic structure in natural populations of hybridizing spruce in the central Rocky Mountains. (2013) *University of Wyoming Program in Ecology Student Symposium*. Laramie, WY. Talk.

**Haselhorst, M.S.H.** & Buerkle, C.A. Hybridization as a window to the ecological genetics of the genus *Picea* in western North America. (2012) *Joint Congress on Evolutionary Biology*. Ottawa, Canada. Poster.

**Haselhorst, M.S.H.**, Edwards, C.E., Rubin, M.J. & Weinig, C. QTL mapping of seed traits and associations to later phenological traits in *Brassica rapa*. (2009) *Congress on Evolutionary Biology*. Moscow, ID. Poster.

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## Student mentoring, advising & internship

**IDeA Networks of Biomedical Research Excellence (INBRE) student mentor**, Northwest College, Powell WY (2017–present). *I co-mentor undergraduate research projects, attend INBRE conferences, and attend the University of Wyoming's undergraduate research days (once a year).*

**Student advisor**, Northwest College, Powell WY (2017–present). *I advise and mentor students in getting the most out of their education dependent on their personal goals. I strive to build a meaningful relationship, to be available, and actively engage in their struggles and achievements.*

**Supervisor work-study students**, Northwest College, Powell WY (2017–present). *I supervise students in the Work-Study program assigned to the Biology department's greenhouse and herbarium.*

**Student internship**, Northwest College, Powell WY (Spring 2018). *In collaboration with the Shoshone National Forest GIS technician, I supervised an internship for one student. The student wanted to hone her skills in GIS in a real-world setting, which made this experience very valuable to her.*

**Supervisor field assistant**, University of Wyoming, Laramie WY (Summers 2010–2015). *I supervised a field assistant during my field work for the spruce project and one summer for a sunflower project. We were in the field one to three weeks at a time, often including tent camping in remote areas. I trained the assistant in sampling and measurement methods and we learned together how to work safely in bear country.*

**Supervisor lab & field assistants**, University of Wyoming, Laramie WY (2008). *During my time as lab technician in the Weinig lab (see above), I supervised and trained undergraduate students in lab protocols, growth chamber procedures, and field work.*

## Service & Leadership

**Director of the Teaching & Learning Center** (part-time; 2018–present), Northwest College, Powell WY.

**Greenhouse manager** (2017–present), Northwest College, Powell WY. *This greenhouse is located at the Department of Biology and the purpose is to support a space for plant related labs and research.*

**Mentor faculty development** (2016–present), University of Wyoming Science Initiative Learning Actively Mentoring Program (SI LAMP).

**External mentor** UW Ellbogen Center for Teaching & Learning (ECTL) Summer Institute on the Scholarship of Teaching and Learning (SoTL) in Laramie, WY (2018).

**Coordinator and Botany Department representative** for the Teaching Assistant Journal Club – “The Gardens” (AY 15/16), University of Wyoming. *I planned bi-weekly meetings where teaching assistants came to discuss topics related to teaching and learning.*

**Student representative** to the Program of Ecology faculty (AY 08/09–10/11), University of Wyoming.

**President of the Student Government (AY 00/01–01/02), Malardalens University College, Sweden.** *This was a full-time elected position, where I was leading over 400 volunteers, 5 employees and a \$2 million budget.*

## Language & other relevant skills

English - fluent; Swedish - mother tongue

Frequently used computer programs & classroom apps: R, Emacs, Unix, LaTeX, ArcGIS, QGIS, Canvas, Moodle, MS Office, the Internet, iClicker Cloud, and PollEverywhere. *To better interact with the students in my classroom, I use an iPad pro (wirelessly connected to a laptop) to be able to annotate slides and walk around in the room. I am also using video casting in some classes to facilitate remote participants.*

## References

By request.