Darla G. French

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EDUCATION

Doctor of Philosophy

Purdue University — West Lafayette, IN

Interdisciplinary Life Sciences/Forestry & Natural Resources

Dissertation: Metabolomic and Transcriptomic Profiling of Asian and North American Ash Trees.

Major Professor: Dr. Richard Meilan

Master of Science in Education

Purdue University — West Lafayette, IN

Curriculum & Instruction / Youth Development & Agricultural Education

Thesis: Scientific Inquiry in Pre-Service Agricultural Education Teacher Education.

Advisor: Dr. Mark Balschweid

Bachelor of Arts

College of Wooster — Wooster, OH

Biological Sciences

Cum Laude, Departmental Honors, Phi Beta Kappa, Beta Beta Beta Honor Society

Senior Thesis: A Study to Determine the Effects of Light, Temperature, and Developmental Stage on Cyanidin 3-glucoside Accumulation in Fresh Leaves of Four Genotypes of Lettuce (*Lactuca sativa*).

Advisors: Dr. Matt Kleinhenz, Ohio Agricultural Research & Development Center / Ohio State University and Dr. William Morgan, College of Wooster

TEACHING EXPERIENCE

Laboratory Coordinator / Lecturer, Biology Department, Oberlin College (OH), 8/2023-present.
Responsible for direct student-contact teaching in laboratories associated with introductory-level department courses for biology, neuroscience, and environmental studies majors; developing/delivering curriculum in laboratory and lecture settings, including course handouts & lectures; utilizing campus LMS system (currently Blackboard); developing/grading assignments & assessments; addressing student questions/concerns; editing student work and providing consistent, timely feedback; developing online course support.

Professor, Department of Biology, University of Pikeville (KY), 8/2021-5/2023.
Associate Professor, Department of Biology, University of Pikeville (KY), 8/2017-8/2021.
Assistant Professor, Department of Biology, University of Pikeville (KY), 8/2012-7/2017.
Responsible for direct student-contact teaching of all levels of undergraduate student courses (both traditional and non-traditional) for biology majors and non-majors; developing/delivering curriculum, including course handouts & lectures; utilizing campus LMS system (currently Canvas, formerly Moodle); developing/grading assignments & assessments; advising over 40

biology majors per semester; addressing student questions/concerns; editing student work and providing consistent, timely feedback; leading seminar discussion sessions; developing online course instruction; organizing and supervising local, regional, and international field trips; supervising Principles lab instructor.

I developed curriculum for the courses listed below:

Laboratory courses: **Principles of Biology I and II** (majors general biology); **Botany** (both traditional and inquiry-based approaches); **Genetics**; **Biology for Future Educators** (elementary education majors); **Introductory Biology** (non-majors); **You and Your Environment** (non-majors).

Lecture courses: **Medical Terminology** (online), **Advanced Medical Terminology** (online), **Nature of Science**, **Religion & Science**, **Religion & Nature**.

Seminar / special topics courses: **Restoration Ecology**; **Bioethics**; **Evolution of Consciousness**; **Gut Microbiology**; **Invasive Species**; **Philosophy of Science**.

Study abroad courses: **Introduction to Ornithology** (Coastal Southeastern United States, 2015; Gulf Coast, 2017; Florida, 2019); **Natural History of Belize** (2013, 2014, 2016, 2018, 2022).

Cross-curricular courses: **First-Year Studies**; **Teaching Biology in the High School** (methods for pre-service teachers); **Belly Dance Basics**; **Intermediate Belly Dance**; **Belly Dance Performance**; **Self-Defense for Women**.

Teaching Assistant / Curriculum Implementer, Department of Forestry and Natural Resources, Purdue University (West Lafayette, IN), 2007-2010.

Responsible for direct student-contact teaching of upper-level undergraduate outdoor laboratory sessions; grading exams, quizzes, and written laboratory assignments; developing grading rubrics; addressing student questions and concerns; and leading laboratory and lecture sessions, both field-based and lab-based. Held office hours. Involved in courses listed below:

Forest Ecosystems – Dr. Michael Jenkins, Fall 2008 and Fall 2009
Forest Ecosystems – Dr. Andriy Zhalnin, Fall 2007
Conservation Biology II: Invasive Species – Dr. John Dunning, Fall 2010 (*also instructor of record, in partial fulfillment of GAANN Fellowship)

Teaching Assistant / Curriculum Developer, Biology Laboratory Outreach, Department of Biological Sciences, Purdue University (West Lafayette, IN), 2002-2004. Dr. Susan Karcher, Department of Biological Sciences.

Organized community outreach program in which undergraduate students wrote lessons for local elementary students and taught them, then submit lessons for publication in national education journals. Guided and critiqued undergraduate work. Communicated with local elementary school teachers. Edited lesson drafts for journal submission. Presentation of projects at regional conferences.

Student Teacher / Curriculum Developer, Supervised Teaching of Agricultural Education Program, Department of Curriculum and Instruction, Purdue University (West Lafayette, IN), Feb-May 2004. Dan Gottschalk, Purdue University Supervisor, and Lynnette Markley, Warsaw Community High School Cooperating Teacher.

Responsible for direct student-contact teaching of 80 high school agricultural education students, grades 9-12, at Warsaw Community High School (Warsaw, IN). Taught introductory agriculture, horticulture, natural resources, and agribusiness courses; developed original lesson

plans for all courses. Supervised FFA activities, including field trips, career development events, and banquets.

Teaching Assistant / Curriculum Implementer, Department of Biological Sciences, Purdue University (West Lafayette, IN), 2002-2003.

Responsible for direct student-contact teaching of freshman-and sophomore-level laboratory sessions; demonstrating techniques and assisting students in everyday laboratory routines; writing/grading assessments and exams; administering practicals; grading laboratory notebooks and library assignments; addressing student questions and concerns; and leading laboratory and review sessions; holding office hours. Involved in courses listed below:

Laboratory in Biology II: Practical Skills in Biological Sciences – Dr. Laurie Iten, Fall 2003
Laboratory in Biology III: Cell Structure and Function – Dr. John Anderson, Fall 2002
Laboratory in Biology IV: Genetics and Molecular Biology – Dr. Susan Karcher, Spring 2003

RESEARCH EXPERIENCE

Pedagogical Research, Department of Biology, University of Pikeville, 8/2012-5/2023.

Incorporation of non-cognitive and high-impact practices, writing-intensive assignments, flipped classroom model, active learning, and experiential learning projects into science courses for majors and non-majors. Science pedagogy and the nature of science as perceived by students are particular interests. Scholarship shared through professional development activities.

Dissertation Research, Molecular Tree Physiology Lab, Department of Forestry & Natural Resources, Purdue University, 6/2006-7/2012.

Characterized transcriptomes and metabolomes of Asian and North American ash trees (genus *Fraxinus*). Learned biochemical analysis protocols for HPLC-UV and GC-MS, as well as molecular biology protocols for identifying a biomarker and doing qRT-PCR analysis and 454 sequencing. Grew all research material from seed. Maintained field and greenhouse populations of ash trees. In a side project, analyzed auxin content of a colleague's samples from mutant poplar lines; learned extraction, purification, and derivatization protocols, as well as how to run the gas chromatograph/mass spectrometer (GC/MS) and analyze GC/MS output. Was involved in generating feedback relating to forestry biofuels projects run by other lab members. Learned basic tissue culture principles as applied to forest molecular biology research.

Graduate Research Assistant, PULSe Interdisciplinary Life Sciences Program, Purdue University, 8/2005-8/2006.

Completed rotations with PULSe faculty members. Assisted faculty members, post-docs, and other graduate students in standard laboratory techniques such as DNA gel electrophoresis, polymerase chain reaction, DNA extraction, two-dimensional separation of proteins, DNA sequencing, karyotyping, and fluorescent *in situ* hybridization. Dr. Rick Meilan, Department of Forestry and Natural Resources; Dr. Peter Goldsbrough, Department of Horticulture & Landscape Architecture; Dr. Cliff Weil, Department of Agronomy; and Dr. Jeff Stuart, Department of Entomology.

Master's Research, Purdue University, Department of Curriculum and Instruction (West Lafayette, IN), 1/2004-8/2005.

Identified scientific inquiry as an important component of agriscience. Identified survey population regarding this issue. Developed and administered survey instrument. Analyzed

responses. Dr. Mark Balschweid, Department of Youth Development & Agricultural Education.

Graduate Research Assistant / Curriculum Developer, Department of Biological Sciences, Purdue University, 5/2005-8/2005.

Assisted in developing teaching/learning digital content for use in self-paced first year biology core laboratory modules. Scripted and storyboarded new computer tutorials. Revised manuals for current first year biology core laboratory modules. Dr. Laurie Iten, Department of Biological Sciences.

Graduate Research Assistant / Curriculum Developer, Department of Youth Development & Agricultural Education, Purdue University, 10/2004-5/2005.

Assisted in developing new curriculum and online tutorials to teach genomics concepts to secondary education science students using the apple as a model system. Designed accompanying lesson plans. Final product viewable at: http://www.four-h.purdue.edu/apple_genomics/. Dr. Kathryn Orvis, Departments of Youth Development & Agricultural Education and Horticulture & Landscape Architecture, and Dr. Peter Goldsbrough, Department of Horticulture & Landscape Architecture.

Summer Research Assistant, Genetics Laboratory, Department of Agronomy, Purdue University, 5/2004-8/2004.

Assisted in maintenance and upkeep of corn genetics research plots. Assisted in pollinating individual corn plants. Acted as field crew morale officer. Dr. Clifford Weil, Department of Agronomy.

Graduate Research Assistant / Curriculum Developer, Department of Biological Sciences, Purdue University, 6/2003-8/2003.

Assisted in developing new curriculum for freshman-level majors' laboratory course. Vetted new experiments and produced detailed protocols for new exercises. Dr. Laurie Iten, Department of Biological Sciences.

Undergraduate Research Assistant, Ohio Agricultural Research & Development Center/Ohio State University (OARDC/OSU), Muck Crops Branch (Celeryville, OH), 6/2002-8/2002.

Assisted in planning, implementation, maintenance, and upkeep of vegetable crop research plots. Acted as liaison between Ohio vegetable farmers and research scientists. Rick Callendar, Muck Crops Branch Manager.

Undergraduate Research Assistant, Vegetable Physiology Laboratory, Horticulture and Crop Science Department, OARDC/OSU (Wooster, OH), 5/2000-5/2002.

Assisted in planning and implementation of vegetable crop research plots. Collected and organized data from research plots. Acted as liaison between branch managers and supervising research scientist. Dr. Matt Kleinhenz, Department of Horticulture and Crop Science.

OTHER WORK EXPERIENCE

Advanced Placement Biology Exam National Reader, Educational Testing Service (https://www.ets.org), 2/2016-present.

Most recently, serving on leadership team as a Question Leader to develop scoring rubric, identify and annotate benchmark and training sample papers, coordinate 3 Early Table Leaders, train several additional Table Leaders, coordinate / plan / execute training for additional Readers, and complete special projects as an assistant to assigned Exam Leader (2023). Served as Question Leader in 2021 and 2022, Early Table Leader in 2020, Early Reader in 2019, and

Reader in 2016-2018. Evaluating samples of AP biology student performance such as written short answers or essays. Receiving training to apply standardized rubrics. Working with scoring team and higher leadership to modify rubrics as necessary. ETS Human Resources: Strategic Workforce Solutions, 1-855-827-5387. Chief Reader for Biology: Amy Dykstra, Bethel University.

Middle Eastern Dance Instructor, University of Pikeville School of Dance (www.ranakalila.com), 1/2013-5/2023.

Developing the Middle Eastern dance program, which did not exist before I moved here. Teaching Middle Eastern dance techniques, history, and choreography to beginners and intermediates. Developing new choreographies. Supervising participation in the annual International Shimmy Mob fundraising and performance activity. Providing group and private lessons on a weekly basis. Assisting with studio performances (biannual fall Dance for a Cure show, biannual Nutcracker performance, annual spring recital). Organizing and supervising troupe performances at local venues. Dance studio coordinator: Conda Little, University of Pikeville School of Dance.

Independent Contract Editor, American Journal Experts (Durham, NC), 7/2022-present and 11/2017-9/2018.

Helping researchers successfully communicate their work by providing author-oriented solutions to overcome the barriers to the manuscript preparation process. Providing timely feedback and suggested edits to manuscripts. Working in conjunction with a team of editors for each manuscript. Using Word's Track Changes functionality. Supervisor: AJE Contractor Recruitment Team.

Writing Assignment Consultant, Laboratory in Biology IV: Genetics and Molecular Biology, Department of Biological Sciences, Purdue University (West Lafayette, IN), 1/2012-5/2012.

Developing rubrics and guidelines for writing assignments in sophomore biology majors core laboratory course; assisting students in completing library research as they develop their assignment topics; consulting with and advising students on their written lab reports and term papers. Holding office hours for direct student-contact. Supervisor: Dr. Sue Karcher, Department of Biological Sciences, Purdue University.

Member Services Associate, Club NewTone (Lafayette, IN), 11/2011-7/2012.

Addressing all aspects of customer service via a front desk post: Handling point-of-sale transactions and customer concerns, member check-in, answering phones, unsupervised opening and closing of club for daily business, taking inventory, selling merchandise, assisting personal trainers and daycare attendants as necessary. Supervisor: Brandon Fleming, Director of Programming, Group Fitness, and Service Desk Team Leader.

Undergraduate Greenhouse Attendant, Biology Department, College of Wooster (Wooster, OH), 9/2000-5/2002.

Maintained Biology Department's greenhouse specimens. Watered and fertilized plants of various genera. Managed greenhouse and potting rooms. Supervisor: Dr. Marilyn Loveless, Department of Biology, College of Wooster.

SKILLS

- Punctual, hard-working, conscientious, organized, and dedicated, with great initiative, teamwork, and leadership skills
- Learning Management Systems including **Blackboard, Moodle, and Canvas**
- **Operating systems**: Microsoft Windows and Macintosh platforms
- **Software**: Blast2GO® functional annotation program for analysis of next-generation transcriptome sequencing, JMP statistical software for students, Microsoft Office suite, Internet Explorer/Mozilla/Safari/Firefox internet browsers
- Certified in **CPR**; capable of remaining calm and handling emergency situations
- Experience leading local, regional, and international **field trips** for students
- **Laboratory skills** include ability to use GC/MS, HPLC-UV, qRT-PCR, and conventional PCR instruments; microscopes; incubators; gel electrophoresis, staining, and visualization systems; sterile technique and tissue culture principles.
- Customer service skills include handling point-of-sale transactions and customer concerns, answering phones, opening and closing premises for daily business without supervision, multi-tasking, working under pressure, and handling inventory

PROFESSIONAL CERTIFICATIONS

Indiana Teaching License, Number 1579865, Grades 7-12, Agricultural Education (major) and Biology (minor). Original 2005-2010, renewals 2010-2015 and 2015-2025. Office of Preparation and Professional Licensure, College of Education, Purdue University.

Basic Physical Defense Certified Instructor, License Number 18RCT-1549, December 2013-present. National Academy of Defense Education / Rape Aggression Defense Systems.

National Association for Fitness Certification, Group Fitness training in progress.

PROFESSIONAL AFFILIATIONS

- Phi Beta Kappa Society, Life Member
- Beta Beta Beta (Tri-Beta) National Biological Honor Society, Life Member
- Sigma Zeta National Science and Mathematics Honor Society, Faculty Member
- Mid-Atlantic Association for Science Teacher Education, 2012-present
- Association for Science Teacher Education (national), 2021-present
- National Association of Biology Teachers (NABT), 2003-2009, 2016-present
- National Science Teachers Association (NSTA), 2003-2008, 2019-present
- Kentucky Science Teachers Association (KSTA), 2022-present
- Society for College Science Teachers (SCST), 2006-2009, 2019-present
- Indiana State Association of Middle Eastern Dancers and Teachers, 2006-present
- Association for Biology Laboratory Education (ABLE), 2004-2009, 2014-present
- Association of College and University Biology Educators (ACUBE), 2021-present
- American Association for the Advancement of Science (AAAS), 2009-2012
- National FFA Alumni Association, 2005-2012
- Ohio FFA Alumni Association, 2005-2012
- American Farm Bureau Federation, 2006-2010
- Hoosier Association of Science Teachers, Incorporated (HASTI), 2003-2008
- Indiana Association of Agricultural Education (IAAE), 2004-2008
- Indiana Association of Biology Teachers (IABT), 2003-2009

POSTERS & PRESENTATIONS (**denotes undergraduate students)

French, D.G. and Browning, J. (2022). Presentation & Poster: Science and Religion in Symbiosis: An Interdisciplinary Learning Experience for Biology Majors. Presented at the National Science Teaching Association national conference (Houston, TX; March 31-April 2).

French, D.G. and Browning, J. (2021). Presentation: Science and Religion in Symbiosis: An Interdisciplinary Learning Experience for Biology Majors in a Liberal Arts Undergraduate Setting. Presented at the Kentucky Academy of Science (virtual; hosted by Eastern Kentucky University; November 5-6).

French, D.G. and Browning, J. (2019). Poster: Science and Religion in Symbiosis: A Collaborative Learning Experience for Biology Majors in a Liberal Arts Undergraduate Setting. Presented at the National Association for Biology Teachers Annual Conference (Chicago, IL; November 14-17, 2019). Older version presented at the Mid-Atlantic Association for Science Teacher Education Regional Conference (Harrisonburg, VA; September 27-29, 2018).

French, D.G. and Browning, J. (2019). Roundtable Discussion: Science and Religion in Symbiosis: Part 2 – A Follow-Up Discussion to Last Year's Presentation. Presented at the Mid-Atlantic Association for Science Teacher Education Regional Conference (Pipestem, WV; September 26-28).

Browning, J., Williams, K., Steigerwalt, J. and **French, D.G.** (2019). Presentation: Form a Posse: Models of Collaborative Teaching. Presented at the Appalachian College Association Annual Summit Meeting (Pigeon Forge, TN; September 26-28).

Browning, J. and **French, D.G.** (2018). Presentation: Science and Religion in Symbiosis. Presented at the Appalachian College Association Annual Summit Meeting (Kingsport, TN; September 28-30).

Freeman, H., Steigerwalt, J., and **French, D.G.** (2018). Presentation: Building a First-Year Studies Program: Successes and Challenges in Engaging First-Year Students. Presented at the Appalachian College Association Annual Summit Meeting (Kingsport, TN; September 28-30).

French, D.G. (2017). Presentation: UPIKE's Natural History Courses. Presented at Elkhorn Area Women's Club (Elkhorn City, KY, October 23) and at Big Sandy River Basin Coalition (Pikeville, KY, April 14).

French, D.G. and Childers, K. (2017). Presentation: Selfie Strong – Women's Self-defense Basics. Presented at Eastern Kentucky Strong Conference for High-School Women (Pikeville, KY; October 17).

French, D.G. and Meyer, M. (2017). Presentation: Best Practices in Experiential Learning: A Case Study Using Ornithology. Presented at the Appalachian College Association Annual Summit Meeting (Kingsport, TN; September 28-30).

Freeman, H. and **French, D.G.** (2017). Presentation: Experiential Learning Practices in Classroom Design. Presented at UPIKE faculty orientation (Pikeville, KY; August 14).

French, D.G. (2017). Presentation: Making Sustainability Relevant to Today's College Students through Experiential Learning. Presented at the Engaging Kentucky Undergraduates through Experiential Education conference (Danville, KY; March 21).

Williams, K., Fugate, E., **French, D.**, Meyer, M., Runyon, A., and Steigerwalt, J. (2016). Presentation: Promoting Faculty and Academic Librarian Collaboration: A Panel Discussion. Presented at the Appalachian College Association Annual Summit Meeting (Kingsport, TN; September 28-October 1).

French, D.G. (2016). Making Sustainability Relevant to Today's College Students. Presented at the Mid-Atlantic Association for Science Teacher Education Regional Conference (Gatlinburg, TN; September 22-24).

Freeman, H., **French, D.**, Meyer, M., and Whittier, T. (2016). Presentation: Student Engagement In and Out of the Classroom. Presented at UPIKE faculty orientation (Pikeville, KY; August 15).

French, D.G. (2015). Presentation: Practical Implementation of Sustainability Curriculum in a Non-science Major Undergraduate Course. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Cline, L., **Summers, T.M., and **French, D.G. (2015). Student poster: Think Sustainable – Planting the Seeds to Sustainability. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Keene, T., **Bowling, K.J., **French, D.G., and Meyer, M.J. (2015). Student poster: Summer Capstone Trip for a Non-traditional Science Education Course. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Smith, N., **Thacker, S., **French, D.G., and Meyer, M.J. (2015). Student poster: Classroom vs. Field: Experiences in Learning and Retention. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

French, D.G. and Meyer, M.J. (2015). Poster: The Use of High-impact and Non-cognitive Educational Practices in Building Classroom Communities in a Variety of Biology Courses. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15). Presented at the Appalachian College Association Annual Summit Meeting (Kingsport, TN; October 1-3).

Meyer, M.J. and **French, D.G.** (2015). Poster: The Expanded Use of High-impact and Non-cognitive Educational Practices in Building Classroom Communities in a Variety of Biology Courses. Presented at the Mid-Atlantic Association for Science Teacher Education Regional Conference (Salt Fork State Park, OH; October 22-24).

French, D.G. and Mathis, J.E. (2014). Presentation: Assessing Sustainability Literacy of Appalachian College Students: A Preliminary Study. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Meyer, M.J. and **French, D.G.** (2014). Poster: The Use of High-impact and Non-cognitive Educational Practices in Building Classroom Communities in a Biology Course. Presented at the Mid-Atlantic Association for Science Teacher Education Regional Conference (Blowing Rock, NC; September 18-20) and the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Gannon, O., **Blackburn, T., **Collinsworth, A., and **French, D. (2014). Student poster: Designing a Rainwater Catchment System for a Community Garden as an Experiential Service-learning Project for a Botany Course. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

Stacy, R., **Williamson, A., **Bevins, A., **French, D., and Meyer, M. (2014). Student poster: A Non-traditional Approach to Re-discover the Traditional Foundations of Community through a Restoration Ecology Course. Presented at the Kentucky Academy of Sciences Annual Meeting (Lexington, KY; November 13-15).

French, D.G. and Meilan, R. (2011). Poster: Rapid Transcriptome Characterization of Green Ash (*Fraxinus pennsylvanica*) Using 454 Sequencing to Study Effects of Emerald Ash Borer (*Agrilus planipennis*) Infestation. Presented at the Department of Forestry and Natural Resources Annual Research Symposium (West Lafayette, IN; April 8).

French, D.G. and Meilan, R. (2010). Poster: Identification of a Biomarker for *Fraxinus* Spp. Presented at the 2010 Department of Forestry and Natural Resources Annual Research Symposium (West Lafayette, IN; April 14).

French, D.G. and Meilan, R. (2010). Invited Presentation: Comparing Metabolomic Profiles of Asian and North American Ash Species (Genus *Fraxinus*) to Investigate the Basis for Resistance to Emerald Ash Borer (*Agrilus planipennis*). Presented at the 2010 Symposium on Ash in North America (West Lafayette, IN; March 11).

French, D.G. and Meilan, R. (2009). Poster: Development of a Biomarker for Jasmonate Pathway Function in *Fraxinus*. Presented at the 2009 Department of Forestry and Natural Resources Annual Research Symposium (West Lafayette, IN; April 20).

French, D.G., Cooper, B., Groover, A. and Meilan, R. (2008). Poster: Auxin Analysis of Two *ARK1* Over-expressing Lines of *Populus*. Presented at the 2008 Department of Forestry and Natural Resources Annual Research Symposium (West Lafayette, IN; April 11).

French, D.G., Cooper, B., Groover, A. and Meilan, R. (2007). Poster: Auxin Analysis of Two 35S:ARK1 Mutant Lines of *Populus*. Presented at the 2007 Department of Forestry and Natural Resources Annual Research Symposium (West Lafayette, IN; April 13).

French, D.G. (2007). The Green Menace of the Midwest: Emerald Ash Borer and What We're Doing to Save America's Ash Trees. Presented for the Spring 2007 PULSe Student Colloquium series (West Lafayette, IN; February 2).

French, D.G. and Balschweid, M. (2006). Scientific Inquiry in Agricultural Education Teacher Preparation. Presented at the North Central Agricultural Education Research Conference (Ames, IA).

French, D.G. and Balschweid, M. (2006). Scientific Inquiry in Agricultural Education Teacher Preparation: A Look at Teacher Educators' Perceptions. Presented at the North Central Agricultural Education Research Conference (Ames, IA).

French, D.G. and Karcher, S.J. (2004). A Lesson in Prairie Conservation: An Example of Collaborative Science Outreach to Local Community Schools Through Cooperation Between Local Industry and Undergraduate Students at a Local University. Presented at the Annual Association for Biology Laboratory Education Conference (Bowling Green, OH).

French, D.G. and Karcher, S.J. (2004). A Lesson in Prairie Conservation: A Joint Project Between Purdue University, Eli Lilly and Company, and Mintonye Elementary School. Presented at the Annual Meeting of the Hoosier Association of Science Teachers, Incorporated (Indianapolis, IN).

****French, D.G.** (2002). Poster: A Study to Determine the Effects of Light, Temperature, and Developmental Stage on Cyanidin 3-glucoside Accumulation in Fresh Leaves of Four Genotypes of Lettuce (*Lactuca sativa*). Presented at the Annual Meeting of the Ohio Academy of Science (Columbus, OH).

PROFESSIONAL DEVELOPMENT

*Conferences Attended (**denotes presenter)*

- The Science of Consciousness, hosted by the University of Arizona Center for Consciousness Studies (virtual), Apr 18-22, 2022.
- **National Science Teaching Association National Conference (Houston, TX), Mar 31-Apr 2, 2022.
- Kentucky Science Teacher Association Higher Education Summit (virtual), Feb 24, 2022.
- Association of Science Teacher Educators (virtual), Jan 5-8, 2022.
- **Kentucky Academy of Science annual meeting (virtual), Nov 5-6, 2021; (Cincinnati, OH), Nov 13-14, 2015; (Lexington, KY), Nov 13-15, 2014; (Morehead, KY), Nov 8-9, 2013; and (Richmond, KY), Oct 19-20, 2012.
- Remote Learning Conference hosted by Arizona State University, Jul 13-14, 2020 (virtual).
- **National Association for Biology Teachers Annual Conference (Chicago, IL), Nov 14-17, 2019.
- Festival of Faiths Interfaith Conference (Louisville, KY), Apr 25-27, 2019.
- **Appalachian College Association Annual Summit Meeting (Knoxville, TN), Sep 28-30, 2017; Sep 28-Oct 1, 2016; and Oct 1-3, 2015.
- National Academic Advising Association (NACADA) Annual Conference (St. Louis, MO), Oct 11-14, 2017.
- University of Kentucky's Women and Gender Studies Annual Conference (Lexington, KY), Sep 16, 2017.
- **Mid-Atlantic Association for Science Teacher Education Regional Conference (Pipestem, WV), Sep 26-28, 2019; (Harrisonburg, VA), Sep 27-29; (Gatlinburg, TN), Sep 22-24, 2016; (Salt Fork State Park, OH), Oct 22-24, 2015; and (Blowing Rock, NC), Sep 18-20, 2014.
- **Engaging Kentucky Undergraduates through Experiential Education Conference (Danville, KY), Mar 21, 2017.
- **The Berry Center Conference on Education for Homecoming: A Sustainable Agriculture Degree Program Convening (New Castle, KY), May 20, 2015, as a UPIKE representative.
- **2010 Symposium on Ash in North America (West Lafayette, IN). Mar 10-12, 2010.
- **Hardwood Tree Improvement and Regeneration Center Advisory Committee Annual Meetings, 2006 and 2007 (West Lafayette, IN).
- **Central Hardwood Forest Conferences, 2007 and 2008 (West Lafayette, IN).
- **2006 North Central Agricultural Education Research Conference (Ames, IA).
- **2004 Annual Association for Biology Laboratory Education Conference (Bowling Green, OH).
- **2004 Annual Meeting of the Hoosier Association of Science Teachers, Incorporated (Indianapolis, IN).
- **2002 Annual Meeting of the Ohio Academy of Science (Columbus, OH) as a presenter.

Selected Workshops Attended

- New England Biolabs / Smith College Molecular Biology Summer Workshop, Jul 9-22, 2023.
- National Science Teachers Association annual STEM Forum, Jul 30, 2020 (virtual).
- Association for Biology Laboratory Education series of online discussions focused on online science teaching in the pandemic, May 2020 (virtual).
- *Assessment as a Cycle: Developing Critical Thinking Through the Assessment Process*. Workshop presented at UPIKE by Teresa Flateby (Georgia Southern), Apr 4-5, 2019.
- Appalachian Writers' Workshop (Hindman, KY), Jul 28, 2017.
- *Increasing the Critical Thinking of Your Biology Students: Research, Assessment, and Ideas to Transform Teaching and Learning*. Webinar from Central Washington University, hosted by McGraw Hill Publisher (online), Mar 16, 2017.
- Appalachian College Association Teaching & Learning Institute (Hickory, NC), Jun 2-6, 2014.
- University of Pikeville Allara Library *Information Literacy* workshop (Pikeville, KY), Aug 2013.
- 19th North American Forest Biology Workshop, May 2007 (Bloomington, IN).

Miscellanea

- Completed American Museum of National History Evolution course (6-week online course), Jan-Feb 2020.
- Dance experience and related professional development details are available at my website, www.ranakalila.com.
- Attended Weather Spotter Training through National Weather Service (virtual), Mar 7, 2017.
- Attended Eastern Kentucky Winter Beekeeping School (Hazard, KY), Jan 21, 2017.

PUBLICATIONS

French, D. and Meilan, R. (2013) Germination trials for Asian and North American ash species. *Tree Planters Notes* 56(2), 27-34.

French, D. (2012) Transcriptomic profiling of North American ash trees (genus *Fraxinus*) [Ph.D. dissertation]. Purdue University. Available at https://docs.lib.purdue.edu/dissertations/AAI3544144/.

Zawaski, C., Ma, C., Strauss, S.H., French, D., Meilan, R., and Busov, V.B. (2012) PHOTOPERIOD RESPONSE 1 (PHOR1)-like genes regulate shoot/root growth, starch accumulation, and wood formation in *Populus*. *Journal of Experimental Botany* 63(15), 5623-34.

McDonnell, L.M., Coleman, H.D., French, D.G., Meilan, R., and Mansfield, S.D. (2010) Engineering trees with target traits. In: *Forests and Genetically Modified Trees*. Eds.: IUFRO Task Force. Food and Agriculture Organization of the United Nations: Rome. pp. 77-122.

French, D.G. (2010) Determining the basis for emerald ash borer resistance. Department of Forestry and Natural Resources: *Compass* magazine, Fall 2010 edition. pp. 12-14.

French, D.G. and Balschweid, M. (2009) Scientific inquiry in agricultural education teacher preparation: A look at teacher educators' perceptions. *Journal of Agricultural Education*, 50(4), 25-35.

French, D.G. and Balschweid, M. (2006). Scientific inquiry in agricultural education teacher preparation. Proceedings of the 2006 North Central Agricultural Education Research Conference, Ames, IA, September 21-23, 2006.

French, D.G. and Balschweid, M. (2006). Scientific inquiry in agricultural education teacher preparation: A look at teacher educators' perceptions. Proceedings of the 2006 North Central Agricultural Education Research Conference, Ames, IA, September 21-23, 2006.

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SERVICE & EXTRACURRICULAR ACTIVITIES

Professional Contributions

- Currently serving on **editorial board** for *BioScene: Journal of College Biology Teaching* (2022-present)
- Served as **secretary for the Science Education section** of the Kentucky Academy of Science (2021-22)
- Reviewed manuscript for *Journal of the American Society for Horticultural Science*, Aug 2021
- Reviewed two chapters from *Ethnobotany: A Modern Perspective* textbook (Kendall Hunt Publishing), Jan 2020
- On behalf of the **Kentucky Office of Educator Licensure and Effectiveness**, I reviewed the University of Cumberlands Master of Arts in Teaching program (Aug 2019) and Transylvania University (May 2020) for alignment with state standards. This contributes toward continued accreditation for each program by the State of Kentucky.
- On behalf of UPIKE College of Education, I **reviewed secondary-education biology and chemistry program requirements** for alignment with Next Generation Science Standards; provided recommendation to Education Department regarding changes needed to better align required courses with NGSS content. Proposals made to curriculum committee and approved by faculty at Nov 2016 faculty meeting.
- Judge, Science Education Division (all levels), Kentucky Academy of Science annual meeting, Nov 2021
- Judge, Plant Sciences Division (all levels), Lafayette (IN) Regional Science & Engineering Fair, Mar 2012
- Coordinator, small intellectual reading group consisting of faculty and community members, meeting on a monthly basis, Jun 2014-Jun 2015

Committee / Administrative Work

- **University Committee Work:** Math/Science Division representative to the General Education Committee (2020-present), Osteopathic Medicine Scholars Program / OMSP (2018-present), Experiential Learning (2018-2020), Faculty Executive Committee representative for Math/Science Division (2017-2020), First-Year Experience (2016-2019), CREDO (2017-2018), Honors Program development (2015-2018), Transportation Committee (2017), Student Evaluation Form Redevelopment Committee (2017), Women's History Month Planning Committee (2017), Special Events Committee (2012-2014), Teacher Education Program Committee (2012-2014)
- **Academic faculty advisor** for approximately 40 biology and pre-service secondary education majors annually; write as many as 30 letters of recommendation annually
- **Biology Department Program Coordinator**, 2019-2021 (compile annual departmental report and coordinate class schedules every semester)
- Supervisor for annual Major Field Assessment Test for biology majors, 2016-present
- Served on several search committees for UPIKE Math & Science division faculty (6 biology positions, 5 chemistry positions) since 2016
- Supervisor for freshmen majors lab instructor position, 2017-2021
- Served at several GROWL admissions orientation sessions as representative of Math & Science Division and/or Study Abroad and/or Honors Program, 2016-present
- Compiled annual Math & Science Division Honors Night slideshows, 2016-2019
- Organized and executed annual Math & Science Division Welcome Party for students in fall semester, 2016-2019
- Completed 360-degree evaluations for Division Chair, Dean, and Provost (2018)
- Advisor, UPIKE Beta Beta Beta National Honor Society (Pi Zeta chapter) & Biology Club, 2015-2018.
- Departmental work-study student supervisor, 2013-2016

- Procured donations of sailfish specimen, telescope, skeletons, dissection charts, and other lab materials from outside sources, ongoing
- Coordinated clean-up and organization of biology department storage space, stock rooms, and lab spaces; developed space in the basement for a soil/field tool room; assisted with compound microscope cleaning and maintenance (2012-2021)
- Purdue University Graduate School Peer Ombudsman, Jul-Dec 2009
- Purdue University Graduate Student Government Endowment Task Force, Mar-Dec 2009
- Purdue University Graduate Student Government, secretary (Apr 2008-Apr 2009) and Department of Forestry & Natural Resources senator/social committee chair (Apr 2007-Apr 2008)
- Director of New Student Mentoring Program, PULSe Interdisciplinary Life Sciences, Purdue University, 2005-06

Grants

- **Awarded $2,750 grant** from Kentucky PRIDE (2017 academic year) for use in environmental work in the classroom – Installed campus garden boxes and tool shed with awarded funds
- **Awarded $29,000 grant** from USDA for Agriculture Planning Grant (feasibility study for instituting a high-technology greenhouse certificate program at UPIKE); grant was transferred to a different faculty member for final administration (Spring 2018)
- Applied for Council of Independent Colleges Seminars on Science Pedagogy grant to workshop the First-Year Studies for Science Majors cohort idea (Spring 2018) – Not funded
- Applied for IDEA Impact grant to implement sustainability curriculum (Spring 2017) – Not funded
- Applied for AISL grant to collect oral histories of eastern KY natural history experiences (Fall 2017) – Not funded

Community Outreach

- Instructor, Rape Aggression Defense System, University of Pikeville women's self-defense physical education class and community education workshops (http://www.rad-systems.com), Dec 2013-present.
- Coordinated a "hissing cockroach starter colony" giveaway for high school science teachers across the country, Apr 2022
- Event Supervisor, "Ornithology" activity of Kentucky State Science Olympiad tournament, Apr 9, 2022
- Event Supervisor, "Water Quality" activity of University of Pikeville Regional Science Olympiad tournament, Feb 29, 2020 and Mar 2, 2019; "Ecology" activity, Mar 3, 2018 and Mar 4, 2017; "Green Generation" activity, Feb 28, 2015 and March 5, 2016; and "Write It, Do It" activity, Mar 2, 2013 and Mar 1, 2014
- Coordinated insect education lesson and adopt-a-hissing cockroach giveaway for 150 Pike County elementary students through Pike County Library, Apr 2021
- Guest speaker for campus Convocation series, topic: Science & Religion in Symbiosis, Nov 2021
- Instructor for UPIKE Mobile STEM program (DNA extraction lesson at Northpoint Academy), Dec 2019
- Coordinated dancers and performed a Middle Eastern dance piece for Pikeville Medical Center Heart Ball, Feb 2020
- Filmed segment for UPIKE "Finding Your Calling" video series sponsored by UPIKE Campus Ministries, Sep 2019
- Filmed segment for UPIKE Experiential Learning promotional video, Apr 2019
- Filmed segments for several UPIKE "Where the 99 Lead" episodes, 2016
- Performed reading for Martin Luther King Day March (Pikeville, KY), Feb 2018

- Leader, Pikeville KY International Shimmy Mob team (www.shimmymob.com), 2013-present (funds raised for local children's shelter, Judi's Place for Kids)
- Secretary and official University of Pikeville faculty representative, Sustainable Pike County (Pikeville, KY; http://www.sustainablepikecounty.com), Aug 2014-Aug 2015; UPIKE and SPC representative to Appalachian Christmas Fair steering committee, 2015; group disbanded in 2015.
- Citizen scientist, Project Feederwatch and Great Backyard Bird Count (Cornell University), winters of 2010-present
- Instructor, Eastern Kentucky Strong Women's Conference (Pikeville, KY), "Basic Self-Defense", October 17, 2017.
- Instructor, West Virginia University National Center of Excellence in Women's Health "World on Wellness" movement sessions ("Shimmy into Shape" and "Introduction to Women's Self-Defense"), Southern West Virginia Community & Technical College, Williamson, WV, Aug 20, 2016 and Sept 26, 2015
- Donated personal magazine subscriptions to UPIKE English as a Second Language program, 2012-2015; established a "free magazine/book" table in division lobby in 2016 (to present) that has been well-received
- Instructor, arthropod section of UPIKE STEM Day Camp (5^{th}-6^{th} grade session), Jul 2017
- Instructor, biology section of UPIKE Rogers Explorers camp (8^{th} grade session), Jul 2016
- Instructor, astronomy section of UPIKE Science and Math Day Camp (5^{th}-6^{th} grade session), Jul 2015; chemistry section (5^{th}-6^{th} and 7^{th}-8^{th} grade sessions), Jul 2014
- Instructor, ecology section of UPIKE Science Day at St. Francis School, Mar 15, 2013

Experiential Learning

- Co-leader for international Belize trip for biology students, May 2013, May 2014, Mar 2016, May 2018, May 2022 (averaging 15 students and 2 faculty).
- Coordinator and co-leader for ornithology student camping trips: Florida coast field trip, May 2019; for Gulf Coast field trip, May-Jun 2017; and for coastal southeastern U.S. field trip, May-Jun 2015 (averaging 12 students and 2 faculty).
- Coordinator for Kentucky Reptile Zoo outreach program on UPIKE's campus, Oct 2019 (attended by approximately 100 students and 20 faculty).
- Chaperone for the Festival of Faiths Interfaith Conference (Louisville, KY), Apr 25-27, 2019 (10 students and 3 faculty).
- Coordinator and head leader for regional field trip to Indianapolis International Festival, Nov 2015; chaperone, Nov 2016 trip (30 students and 6 faculty).
- Coordinator and co-leader for student trip to Kentucky Academy of Science annual conferences, 2014 (18 students, 3 faculty) and 2015 (20 students, 3 faculty).

HONORS & AWARDS

- Top Student and Certified Molecular Biologist, New England Biolabs / Smith College Molecular Biology Summer Workshop, Jul 2023
- Winner, poster contest, Appalachian College Association Teaching & Learning Institute, June 2014 (topic: Integrating Technology into the Classroom)
- Sigma Zeta National Science and Mathematics Honor Society (Beta Xi chapter), inducted as faculty member May 2014
- GAANN Fellowship recipient, Department of Forestry & Natural Resources, Purdue University and Federal Department of Education, 2006 to present
- Second place finish in Ph.D. Research Poster Division, 2009 Forestry and Natural Resources Annual Spring Research Symposium
- Outstanding Graduate Student Teaching Assistant Honor Roll, Department of Biological Sciences, Purdue University, Spring 2007 (retroactive for 2003-2005)
- Lynn Fellowship recipient, PULSe Interdisciplinary Life Sciences Program, Purdue University, 2005-06
- Received Certificate of Excellence, Praxis Biology Content Exam for Secondary Education, 15 November 2003
- Inducted to Phi Beta Kappa (Kappa of Ohio Chapter, College of Wooster), May 2002
- Received 'honors' rating on senior thesis, College of Wooster, May 2002
- Received *Cum laude* Bachelor of Arts degree, College of Wooster, May 2002
- Inducted to Beta Beta Beta National Biological Honor Society (Xi Nu Chapter), 1999
- Received National FFA Organization's American Degree, 1999
- Received Ohio FFA Organization's State Degree, 1998
- Received Ohio FFA Organization's Top Floriculture Proficiency Award, 1998 (Runner-up, 1997)