

## CURRICULUM VITAE: Laura E. DeWald

### EDUCATION

- Ph.D.**, 1986, Forestry (genetics/tree physiology), Virginia Tech., Blacksburg, VA  
Dissertation: Changes in Loblolly Pine Seedling Root Growth Potential: Over Time, During Cold Storage, and Among Half-Sib Families
- M.S.**, 1982, Forest Resources (genetics), Pennsylvania State University, University Park, PA  
Thesis: Juvenile Performance in a Range-Wide Provenance Study of *Alnus glutinosa* (L.) Gaertn.
- B.S.**, 1980, Forestry, Michigan Technological University, Houghton, MI

### EMPLOYMENT HISTORY

- June 2019 – present: Dept. Forestry & Natural Resources, University of Kentucky, Lexington, KY**  
Forest Genetics Research Specialist.
- August 2004 – May 2019: Western Carolina University, Cullowhee, NC**  
*Graduate Faculty and Professor*, Interdisciplinary appointment (50% Environmental Science Program, 25% Natural Resources Conservation & Management Program [both in the Geoscience & Natural Resources Dept.], and 25% Biology Department).  
**Aug 2017-Aug 2018:** Sabbatical leave: *Research Forest Geneticist* working with Dr. Richard Sniezko (US Forest Service, Dorena Genetics Resource Center, Cottage Grove, OR)  
*Assistant Professor* 2004-2007, *Associate Professor* with tenure 2007-2011, *Full Professor* 2011-present, *Director* Environmental Science Program 2006-2016.
- August 1994 – July 2004: School of Forestry, Northern Arizona University, Flagstaff, AZ**  
July 2003 – July 2004: Associate Dean, Associate Professor, and Program Director, AZ Bureau Forestry and USDA McIntire-Stennis Funds  
Aug. 1994 – July 1998 and Aug. 1998 - June 2003: Assistant and Associate Professor, respectively, Forest Conservation Genetics & Forest Ecology
- September 1992 - July 1994: Green River Community College, Auburn, WA**  
Sept. 1992 – July 1994: Forest Resources Technology Faculty (Dept. Chair 1993-1994)
- July 1989 - August 1992: Warren Wilson College, Asheville, NC**  
July 1989 – August 1992: Forest Biology Faculty and Forest Supervisor
- November 1987 - June 1989: Dept. Forestry, University of Florida, Gainesville, FL.**  
Post-Doctoral Research Associate: Nitrogen and seedling carbon allocation in fast- and slow-growing half-sibling families of slash pine (*Pinus elliottii*)
- July 1986 - November 1987: Forest Resources Dept., University of Minnesota, St. Paul, MN**  
Post-Doctoral Research Associate: Effects of soil aluminum on nutrition, water relations and growth on red and white spruce (*Picea rubens, glauca*), and northern red oak (*Quercus rubra*) seedlings
- September 1982 - June 1986: Dept. Forestry, Virginia Tech, Blacksburg, VA.**  
Research Assistant: genetics and physiology studies with loblolly pine (*Pinus taeda*) and Fraser fir (*Abies fraseri*), editing Appomattox Court House National Historical Park Forest Management Plan,
- September 1980 - May 1982: School Forest Resources, Penn State Univ., University Park, PA**  
Research Assistant: graduate research and teaching
- May – August 1979 & 1980:** Forest Technician, US Forest Service, Payette National Forest, Idaho

## RESEARCH EXPERIENCE – PUBLICATIONS

**Peer-Reviewed Journals** (*publications in italic are related to teaching*) \* = student

- Kamakura\*, RP and LE DeWald. 2019. Relationships between abiotic and geographic variation in phenology, growth and mortality in Pacific madrone (*Arbutus menziesii* Pursh). In internal review, to be submitted to Forest Ecology and Management
- Montgomery\*, AD and LE DeWald. 2019. Predicting threatened orchid (*Isotria medeoloides* [Pursh] Raf.) habitat in the Southern Appalachian region using Maxent. Favorable reviews from Biological Conservation. In revision.
- Hillard\*, LE, A Rockhill, LE DeWald and J Yarkovich. 2019. Elk (*Cervus elaphus* L.) habitat selection in Great Smoky Mountains National Park. Favorable reviews from Forest Ecology and Management. In revision
- DeWald, LE and KM Kolanoski\*. 2017. Conserving genetic diversity in ecological restoration: A case study with ponderosa pine in Northern Arizona, USA. *New Forests*. DOI 10.1007/s11056-016-9565-1
- Punsalan\*, A, B Collins and LE DeWald. 2016. The germination ecology of *Helonias bullata* L. (swamp pink) with respect to dry, saturated, and flooded conditions. *Aquatic Botany* 133:17-23
- Dixon\*, GB and LE DeWald. 2015. Microsatellite survey of aspen in the Kaibab National Forest suggests link between triploidy and mortality. *Canadian Journal of Forest Research* 45:1369–1375
- Lett\*, CN, LE DeWald and J Horton. 2011. Mycorrhizae and soil phosphorus affect growth of *Celastrus orbiculatus*. *Biological Invasions* 13:2339-2350
- Zhang\*, H., LE DeWald, TE Kolb, DF Keopke. 2011. Genetic variation in ecophysiological and survival responses to drought in two native grasses: *Koeleria macrantha* and *Elymus elymoides*. *Western North American Naturalist* 71:25-32
- Torgerson\*, J and LE DeWald. 2011. Genetic variation in *Hydrastis canadensis* populations in western North Carolina. Abstract in United Plant Savers Winter Journal, www.UnitedPlantSavers.org
- Falcone\*, JF, and LE DeWald. 2010. Comparisons of arthropod and avian assemblages in insecticide-treated and untreated eastern hemlock stands in Great Smoky Mountains National Park, USA. *Forest Ecology and Management* 260:856-863
- DeWald, LE and MF Mahalovich. 2008. Historical and contemporary lessons from ponderosa pine studies at the Fort Valley Experimental Forest. Pages 204-213 *In*: Olberding, SD and MM Moore, tech. coords. 2008. Fort Valley; Experimental Forest – A Century of Research 1908-2008. RMRS-P-53CD. Fort Collins, CO. USDA Forest Service, 408 pages. On-line, peer-reviewed manuscript ([www.fs.fed.us/rm/pubs/rmrs\\_p053.pdf](http://www.fs.fed.us/rm/pubs/rmrs_p053.pdf))
- Extine\*, JL and LE DeWald. 2008. Comparison of potential habitat among golf courses in western North Carolina. *Southeastern Biology* 55(3):282
- Falcone\*, JF and LE DeWald. 2008. Effects of a hemlock woolly adelgid (*Adelges tsugae*) insecticide treatment on arthropod community diversity and food availability for insectivorous birds in GSM National Park. *Southeastern Biology* 55(3):283
- Grant\*, S and LE DeWald. 2008. Changes in genetic diversity of *Quercus rubra* following different harvesting regimes and the decline of *Castanea dentata* in Western North Carolina. *Southeastern Biology* 55(3):254
- Lett\*, C and LE DeWald. 2008. Effects of mycorrhizae fungi on the growth of *Celastrus orbiculatus*. *Southeastern Biology* 55(3):245
- McRae\*, BH, P Beier, LY Huynh, L DeWald, and P Keim. 2005. Habitat barriers limit gene flow and illuminate historical events in a wide ranging carnivore, the American puma. *Molecular Ecology* 14:1965-1977

- Steed\*, JE and LE **DeWald**. 2003. Transplanting Sedges (*Carex* spp.) in southwestern riparian meadows. *Restoration Ecology* 11:247-256
- Steed\*, JE, LE **DeWald**, and TE Kolb. 2002. Physiological and growth responses of riparian sedge transplants to groundwater depth. *International Journal of Plant Science* 163:925-936
- Fischer\*, DG, TE Kolb and LE **DeWald**. 2002. Changes in whole-tree water relations during ontogeny of *Pinus flexilis* and *Pinus ponderosa* in a high-elevation meadow. *Tree Physiology* 22:675-685
- Chen\*, Z, TE Kolb, KM Clancy, VD Hipkins and LE **DeWald**. 2001. Allozyme variation in interior Douglas-fir: association with growth and resistance to western spruce budworm herbivory. *Canadian Journal of Forest Research* 31:1691-1700
- Kolb, TE, PJ Daugherty and LE **DeWald**. 2001. *Paving the way from school to work: Core graduate education at Northern Arizona University*. *Journal of Forestry* 99:11-15.
- Naumburg\*, E, LE **DeWald**, and TE Kolb. 2001. Shade responses of five grasses native to southwestern US *Pinus ponderosa* forests. *Canadian Journal of Botany* 79:1001-1009
- Kolb, TE, LE **DeWald** and PJ Daugherty. 2000. *Core education for forestry graduate students at Northern Ariz. Univ. In: Proc. 3<sup>rd</sup> Biennial Conf. Univ. Education in Natural Resources*. Full 13-page paper available at <http://www.snr.missouri.edu/meetings/uenr/kolb.pdf>.
- Namburg\*, E and LE **DeWald**. 1999. Relationships between *Pinus ponderosa* forest structure, light characteristics, and understory graminoid species presence and abundance. *Forest Ecology and Management* 124:205-215
- DeWald**, LE and AE Springer. 1999. Riparian restoration improves a rare Bebb willow community (Arizona). *Ecological Restoration - Research Notes*. Dec. 1999
- Zimmerman\*, JAC, LE **DeWald** and PG Rowlands. 1999. Vegetation diversity in an interconnected ephemeral riparian system of north-central Arizona, USA. *Biological Conservation* 90:217-228
- DeWald**, LE and MF Mahalovich. 1997. The role of forest genetics in managing ecosystems. *Journal of Forestry* 95:12-16
- DeWald**, LE, T White and ML Duryea. 1992. Performance of four slash pine families grown in different nitrogen regimes. *Tree Physiology* 11:255-269
- DeWald**, LE, EI Sucoff, and T Ohno. 1990. Response of northern red oak seedlings to soil solution aluminum. *Canadian Journal of Forest Research* 20:331-336
- DeWald**, LE and PP Feret. 1988. Changes in loblolly pine seedlings during cold storage. *Forest Science* 34:41-54
- DeWald**, LE and PP Feret. 1987. Changes in loblolly pine seedling root growth potential from Sept. to April. *Canadian Journal of Forest Research* 17:635-643
- DeWald**, LE and KC Steiner. 1986. Phenology, height increment and cold tolerance of *Alnus glutinosa* populations in a common environment. *Silvae Genetica* 35:205-211

### Book Chapters

- DeWald**, LE 2003. Conserving genetic diversity during restoration thinning. Pages 226-227 In: Peter Friederici (editor) *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press
- Shamoun, SF and LE **DeWald**. 2003. Management strategies for dwarf mistletoes: Biological, chemical and genetic approaches. Chapter 7 In: Geils, BW, JC Tovar and B Moody (eds.) *Mistletoes of North American Conifers*. USDA Forest Service, Gen. Tech. Report RMRS-GTR-98, Ogden, UT. 123 pp.

**Other Publications (Internally Reviewed)**

- Loeb, S, Collins, B, **DeWald**, L, Hyman J, Balwin E, Cushing E, Rankin D. 2018. Landscape-Scale Thresholds of Early Successional Habitat: Reconciling Biodiversity, Public Perception, and Timber Yield in Managed Forests. USDA-AFRI Final Report. Clemson, SC
- DeWald**, L and Binnering, S. 2017. Effects of fire severity on the herbaceous plant species of xeric pine-oak forests in the Great Smoky Mountains National Park. Final Report, NPS, Great Smoky Mountain National Park
- DeWald**, LE and Abila, S. 2015. Multi-severity fire effects and predicting burn severity in xeric oak-pine communities in the Great Smoky Mountains National Park. Final Report, NPS, Great Smoky Mountains National Park
- DeWald, LE and Montgomery, A. 2015. Predicting suitable habitat of the Federally threatened species *Isotria medeoloides* (Pursh) in the southern Appalachian region using the Maxent model approach. Final Report. US Forest Service
- DeWald**, LE and Hillard L. 2013. Habitat use by elk in Great Smoky Mountains National Park. Final Reports to Rocky Mountain Elk Foundation and NPS Great Smoky Mountains National Park.
- Brown, G, Alaback, P, Blatner, K, Cox, J, **DeWald**, L, Fielder, D, Russell, G, Schultz E, Sharick T, Steiner, K. 2012. Final report of the Society of American Foresters Task Force on Educational Programs in Terrestrial Ecosystem Management. Society of American Foresters, Bethesda, MD
- DeWald**, LE. 2011 and 2015. Environmental Science Program Review self-studies
- Falcone, JF and LE **DeWald**. 2007. Relationships between stand density and morphological characteristics in *Arundinaria gigantea*. Cherokee Preservation Foundation Final Report
- DeWald**, LE and J F Falcone. 2007. Effects of hemlock woolly adelgid (*Adelges tsugae*) and an insecticide treatment on food availability for the black-throated green warbler (*Dendroica virens*) in GSM National Park. Final Report
- DeWald**, LE. 2006. Seeking clear indicators for effective new changes in education students. Final Report, NC QUEST. Raleigh, NC
- DeWald**, LE 2004. Strategic Plan for the School of Forestry, Northern Arizona University
- Machina, LM, MM Moore and LE **DeWald**. 2003. Herbaceous understory phenology, growth, reproduction, and germination response to forest restoration treatments. USFS Research Joint Venture Agreement No. RMRS-99159-RJVA Final Report. Flagstaff, AZ
- DeWald**, LE, AE Springer, and S Gary. 2004. Watershed restoration of a high-elevation riparian community. AZ Dept. Water Resources, Water Protection Fund. Final Report
- DeWald**, LE and KM Kolanoski. 2002. Effects of stand density reduction treatments on genetic variation of ponderosa pine in northern Arizona. USFS Research Joint Venture Agreement Final Report. Rocky Mountain Research Station, Flagstaff, AZ
- DeWald**, LE and JE Steed. 2002. Evaluation of *Carex* species for use in riparian restoration. Arizona Water Protection Fund Final reports
- Steed, JE and LE **DeWald**. 2002. Re-vegetation guidelines for sedges (*Carex* spp.) in southwestern riparian meadows. AZ Dept. Water Resources, Phoenix, AZ
- DeWald**, LE 2002. “Technology Corner”. AZ Water Protection Fund Newsletter. May 2002
- DeWald**, LE and AE Springer. 2000. Incorporating ecological and non-ecological concerns in the restoration of a high-elevation Bebb willow riparian community. USFS RMR-GTR

**RESEARCH EXPERIENCE - Research Grant History** (*teaching grants in italics*)

- 1) Decline in Pacific madrone: Assessing health and future persistence using common garden sentinel tests. PI LE DeWald. Collaborative project with USFS and Washington State University. USDA Forest Health Protection Evaluation Monitoring Program. 2018-2020 \$103,240
- 2) Dendroecology of Carolina hemlock (*Tsuga caroliniana*) stands in the southern Appalachian Mountains. Co-PI with TL Keyser, US Forest Service. 2017-2019 \$12,968
- 3) Effects of fire severity on the herbaceous plant species of xeric pine-oak forests in the Great Smoky Mountains National Park. S Binninger and LE DeWald. Great Smoky Mountains Conservation Association. 2015 \$5000
- 4) Habitat use by elk in Great Smoky Mountains National Park. LE DeWald. Rocky Mountain Elk Foundation. 2012-2013 \$11,378
- 5) Landscape-scale thresholds of early successional habitat: Reconciling biodiversity, public perception and timber yield in managed forests. Co-PI with S Loeb (USFS Research), B Collins and J Hyman (WCU Biology), E Baldwin and T Cushing (Clemson), and D Rankin (USFS Nantahala NF). USDA-AFRI 2012-2017. \$449,148
- 6) Investigating near-ground climate in contrasting sites. Co-PI B Collins (WCU Biology). National Oceanic and Atmospheric Administration 2011-2012 \$11,340
- 7) Mapping elk trails in the Great Smoky Mountains National Park. LE DeWald. WCU Graduate School Research Assistant Employment Grant. 2011 \$1000
- 8) Effects of hemlock woolly adelgid (*Adelges tsugae*) and an insecticide treatment on food availability for the black-throated green warbler (*Dendroica virens*) in Great Smoky Mountains National Park. Co-PI JF Falcone (WCU Biology), 2007 Network Research Grant Program, Appalachian Highlands Science Learning Center Seed Grants, USDI Great Smoky Mountains National Park. May-August 2007. \$2000
- 9) *Sciences: Seeking clear indicators for effective new changes in educating students. Co-PI Kim Elliott (College of Education and Allied Professions, WCU), North Carolina State NC QUEST – continuation project. 2007-2008, \$125,000*
- 10) LI-COR Purchase. Collaborator with Beverly Collins (Dept. Biology, WCU). LI-COR Environmental Education Fund (LEEF), LI-COR Biosciences, Lincoln NE. 2007 \$25,000
- 11) *Sciences: Seeking clear indicators for effective new changes in educating students. Collaboration with Kim Elliott (Director, Office of Rural Education, College of Education and Allied Professions, WCU). North Carolina State NC QUEST. 2006-2007, \$250,000*
- 12) Production and distribution of native medicinal plants in western North Carolina. Institute for the Economy and Future, Western Carolina University. 2006. \$3000
- 13) Northern red oak genomic investigations. Co-PI with Wesley Bonds (WCU Chemistry), UNC Genomics Training Support Grants. 2005-2008, \$100,000
- 14) Ravenna grass removal and riparian rehabilitation in Llewelyn Gulch, Glen Canyon National Recreational Area. Partners in Parks and National Park Service. NAU 2004-2005, \$16,000
- 15) *Native American Student Recruitment Program. Undergraduate Student Recruitment and Retention Grant. CO-PI K. Leao. NAU, 2004-2005. \$2500*
- 16) Investigating genetic diversity of ponderosa pine. T & E Inc. NAU 2004-2005, \$2408.
- 17) Genetic structure within and among four grasses native to ponderosa pine ecosystems. USDA McIntire-Stennis/AZ Bureau Forestry. NAU 2002-2006, \$76,900
- 18) Genetic structure within and among four grasses native to ponderosa pine ecosystems. Northern Arizona University Intramural Grants Program. NAU 2002-2003, \$11,700

- 19) Evaluating grass seed, seedlings and wildlings for ponderosa pine ecosystem restoration. USDA SW Fire Initiative & NAU Ecological Restoration Institute. 2001-2003, \$86,120
- 20) Managing fragmented Douglas-fir (*Pseudotsuga* spp.) ecosystems in the southwestern US & Mexico. Co-PI J. Bailey (Forestry), SDA/FAS/ICD/RSED/SCP. NAU 1999-2002, \$27,094.
- 21) Evaluation of *Carex* species for use in riparian restoration. AZ Dept. Water Resources Water Protection Fund. NAU 1999-2002, \$47,907.
- 22) Watershed restoration of a high-elevation riparian community. Co-PI A. Springer (NAU Geology), AZ Dept. Water Resources Water Protection Fund. NAU 1999-2002, \$286,275
- 23) Verde River headwaters riparian restoration demonstration project. Co-PI D. Anderson (Environmental Science), A. Springer (Geology), W. Odem (Civil Engineering), AZ Dept. Water Resources Water Protection Fund. NAU 1999-2002, \$148,429.
- 24) Trees from the world's continents at Northern Arizona University. AZ Urban and Community Forestry, Community Challenge Grant. AZ State Land Dept., Forestry Division. NAU 1999-2000, \$10,000.
- 25) Genetic Variation in Douglas-fir Resistance Mechanisms to Western Spruce Budworm Herbivory. Co-PI T. Kolb (Forestry), USDA Forest Service. NAU 1998-2001, \$78,000.
- 26) Evaluating Genetic Diversity of Two Grass Species in a Ponderosa Pine Restoration Project. Northern Arizona University. Intramural Grants Program. NAU 1998-1999, \$12,075.
- 27) Is Douglas-fir Seedling Vigor an Inherited Mechanism for Spruce Budworm Resistance? Northern Arizona University. Intramural Grants Program. NAU 1997-1998, \$7925.
- 28) Evaluation of a Cougar-Based Reserve Design for Conserving Biodiversity on the Colorado Plateau. Co-PI with P. Beier (Forestry) USDA McIntire-Stennis/AZ Bureau of Forestry. NAU 1997-2001, \$62,000.
- 29) Response of a Bebb willow-mixed graminoid community to riparian habitat restoration. USDA McIntire-Stennis/AZ Bureau Forestry. NAU 1996-1998, \$28,000
- 30) Response of Bebb willow to riparian restoration. Co-PI A. Springer (Geology). AZ Dept. Water Resources Water Protection Fund. NAU 1996-1998, \$33,752
- 31) Hoxworth Springs riparian Restoration. Co-PI A. Springer (Geology), AZ Dept. Water Resources Water Protection Fund. NAU 1996-1999, \$31,545
- 32) Influence of light regime on grass species composition in southwestern ponderosa pine forests. USDA McIntire-Stennis/AZ Bureau Forestry. NAU 1995-1997, \$27,000
- 33) Incorporating gene resource conservation into ponderosa pine ecosystem restoration efforts. Northern Arizona University, Intramural Grants Program. NAU 1995-1996. \$13,233
- 34) Genetic variation among populations of Douglas-fir on the Navajo Reservation and implications for regeneration management. USDA McIntire-Stennis/AZ Bureau Forestry. NAU 1995-1999, \$56,000
- 35) Critical riparian habitat restoration along a perennial reach of a Verde River tributary. Co-PI A. Springer (Geology). AZ Dept. Water Resources Water Protection Fund. NAU 1995-1999, \$102,535.
- 36) Morphological and genetic variation among and within Arizona bugbane populations. Northern Arizona University, Intramural Grants Program. NAU 1994-1995, \$83,000

**RESEARCH EXPERIENCE - Professional Presentations: 2010 - present***(presentations in italic are related to education and/or teaching)* \* = student

- DeWald, LE.** 2020. (Invited) Conserving genetic diversity in ponderosa pine (*Pinus ponderosa*) ecosystem restoration. Seminar series, Dept. Forestry and Natural Resources, University of Kentucky, Lexington, KY Feb. 19
- DeWald, LE.** 2020. (Invited) White oak genetics improvement program. Kentucky-Tennessee Society of American Foresters annual winter meeting, Bowling Green, KY Jan. 30-31
- DeWald, LE.** 2019. (Invited) Using Molecular Tools to Address Conservation and Restoration Problems in Natural Resources Management. Invited Seminar. Eastern Kentucky Univ., Richmond KY Dec. 6
- DeWald, LE.** 2019. (Invited) White oak (*Quercus alba*) genetic improvement for forest health and forest product industries. Cumberland County Extension, Master Gardeners, Burkesville, KY, Nov. 11, 2019
- DeWald, LE, CD Nelson, JW Stringer.** 2019. (Poster) Genetic improvement project for white oak (*Quercus alba*). Society of American Foresters National Convention, Louisville, KY Oct. 31-Nov. 2
- DeWald, LE.** 2019. White oak (*Quercus alba*) genetic improvement for forest health and forest product industries. Society of American Foresters National Convention, Louisville, KY Oct. 31-Nov. 2
- DeWald, LE, Crocker, EV, Nielsen, A., Abbott, A and Nelson CD.** 2019. Genetic improvement in white oak (*Quercus alba*). 35<sup>th</sup> Southern Tree Improvement Conference, Lexington, KY. June 3-6.
- DeWald, LE.** 2019. **(Invited)** Genetic variation in Pacific madrone (*Arbutus menziesii* Pursh). Paul Burton Seminar Series, Western Carolina University, April 26.
- Wind, M\*, LE **DeWald**, TL Keyser. 2019. Dendroecology of Carolina hemlock (*Tsuga caroliniana* Engelm.) in the southern Appalachian mountains. Annual Meeting, Association of Southeastern Biologists, April 3-6, Memphis, TN
- DeWald, LE, Elliott, M, Sniezko, R, Chastagner, GA.** 2018 (poster). Geographic and local genetic variation in Pacific madrone leaf blight., 6th International Workshop on the Genetics of Tree-Parasite Interactions, Mt. Sterling, Ohio, Aug. 5-10. Extended abstract in proceedings.
- DeWald, LE, Elliott, M, Sniezko, R, Chastagner, GA.** 2018 (poster). Genetic variation in Pacific madrone (*Arbutus menziesii*): Early results of a multiple site common garden study. Soc. Amer. Foresters National Convention, Portland, OR Oct 3-7
- DeWald, LE, Sniezko, RA, Elliott, M, Chastagner, GA, Russell, JR.** 2018. (Poster) Geographic and local genetic variation in Pacific madrone leaf blight. Society of American Foresters, National Convention, Portland, OR, Oct. 3-7
- DeWald, LE.** 2018. **(Invited)** Genetic variation in Pacific madrone: Early results of a multiple site common garden study. US Forest Service, Dorena Genetics Resource Center, Cottage Grove, OR, May 10
- DeWald, LE, R Sniezko, M Elliott, GA Chastagner, JH Russell.** 2018. Genetic variation in Pacific madrone: Management implications for future climate conditions. Northwest Scientific Association Annual Meeting. Evergreen State College, Olympia, WA Mar 27-30
- DeWald, LE, D Onder, M Diede, S LeBeau.** 2016. (Poster) Improving program review assessment through learning communities. Association for the Assessment of Learning in Higher Education Annual Conference. June 6-8, Milwaukee, WI.
- DeWald, LE.** 2016. Conserving genetic diversity in ponderosa pine ecosystem restoration. Gene Conservation of Forest Trees Workshop. Sponsored by USDA Forest Service. May 16-19, Chicago IL
- Binninger\*, S, LE **DeWald.** 2016. Herb abundance and diversity among fire severities in pine-oak forests of Great Smoky Mountains National Park. 77<sup>th</sup> Annual Meeting, Assoc. Southeastern Biologists, March 31-April 3, Charlotte, NC

- Hawk\*, AM, LE **DeWald**. 2016. Comparing MAXENT and DOMAIN habitat suitability modeling for a rare plant species. 77<sup>th</sup> Annual Meeting, Assoc. SE Biologists, March 31-April 3, Charlotte, NC
- Green\*, T and LE **DeWald**. 2016. Relationships between woody species functional traits and structure with distance into harvested openings. 77<sup>th</sup> Annual Meeting, Association of Southeastern Biologists, March 31-April 3, Charlotte, NC
- Hawk\*, AM, LE **DeWald**. 2016. Comparing MAXENT and DOMAIN habitat suitability modeling for a rare plant species. Great Smoky Mountain National Park Science Colloquium. 3/17/16 Gatlinburg, TN
- Binner\*, S, LE **DeWald**. 2016. Herb abundance and diversity among fire severities in pine-oak forests of Great Smoky Mountains National Park. Great Smoky Mountain National Park Science Colloquium. 3/17/16 Gatlinburg, TN
- Styers, D, L DeWald, G Wasserberg, B Byrd. 2016. (Poster). *Integration of mosquito ecology laboratory exercise into biological, geoscience and environmental science courses: Using oivtraps to create authentic learning experiences*. 82nd Annual meeting, American Mosquito Control Association. Feb. 7-11, Savannah GA.
- Franklin\*, J, LE **DeWald**, J Yarkovich. 2015. (Poster) Monitoring elk grazing in Great Smoky Mountains National Park. Society of American Foresters National Convention, Baton Rouge, LA
- Loeb, S, B Collins, J Hyman, L **DeWald**, ED Baldwin, TJ Straka. 2015. Landscape-scale thresholds of early successional habitat. NIFA Project Leaders Meeting, Greensboro, NC July 28-29
- DeWald**, LE. 2015. (Poster) Evidence of rapid evolution in *Pinus ponderosa* populations in the American southwest. Darwin Day, WCU, Feb. 12.
- Montgomery\*, A. and LE **DeWald**. 2014. (Invited) Predicting suitable habitat for *Isotria medeoloides* (Pursh) in the southern Appalachian region. US Forest Service, Seminar Series, Southeastern Regional Office, Atlanta, GA November 13
- DeWald**, LE. 2014. (Invited) Environmental threats to biodiversity: Why they matter and how to solve them. Western Piedmont Community College Fall Speakers Forum: The Living Earth: Our Inheritance and Our Legacy. Morganton, NC, November 6.
- Abla\*, S and LE **DeWald**. 2014. Multi-severity fire effects in xeric oak-pine communities following small fires in the Great Smoky Mountains National Park. Association for Fire Ecology and International Association of Wildland Fire Conference: Large Wildland Fires: Social, Political and Ecological Effects, Missoula, Montana May 19-23, 2014
- Abla\*, S and LE **DeWald**. 2014. Multi-severity fire effects and predicting burn severity in xeric oak-pine communities in the Great Smoky Mountains National Park. Great Smoky Mountains National Park Science Colloquium, Gatlinburg, TN March 20, 2014
- Montgomery\*, A and LE **DeWald**. 2014. Predicting suitable habitat of the Federally threatened species *Isotria medeoloides* (Pursh) in the southern Appalachian region using the Maxent Model approach. 75<sup>th</sup> Annual Meeting Assoc. Southeastern Biologists, Spartanburg, SC April 2-5
- Abla\*, S and LE **DeWald**. 2014. Multi-severity fire effects in xeric oak-pine communities following small fires in the Great Smoky Mountains National Park. 75<sup>th</sup> Annual Meeting of the Association of Southeastern Biologists, Spartanburg, SC April 2-5
- Abla\*, S and LE **DeWald**. 2013. Comparing fire severity maps to plant community responses in Great Smoky Mountains National Park. Society of American Foresters National Convention, Charleston, SC, Oct. 23-27
- Hillard\*, EM and LE **DeWald**. 2013. (Poster) Habitat use by elk (*Cervus elaphus*) in Great Smoky Mountains National Park. College of Agricultural Sciences Fall Festival, Southern Illinois University, Carbondale, IL Oct. 18



- DeWald, LE and G Dixon\***. 2013. **(Invited)** Relationships between genetic diversity, clonal structure and sudden aspen decline in Kaibab National Forest, Arizona. 12<sup>th</sup> Biennial Conference of Science and Management on the Colorado Plateau. Special Session: Current state of knowledge: Sudden aspen decline on the Colorado Plateau. Northern Arizona University, Flagstaff, AZ Sept. 16-19.
- Collins, B, LE **DeWald**, J Hyman and S. Loeb. 2013. (Poster) Landscape-scale thresholds of early successional habitat: Reconciling biodiversity, public perception, and timber yield in the Nantahala National Forest. Biennial North American Forest Ecology Workshop: Sustaining Forest Ecosystem in the 21<sup>st</sup> Century. Bloomington, IN. July 17-20.
- Punsalan\*, AP, B Collins, and LE **DeWald**. 2013. Germination ecology of *Helonias bullata* (Swamp pink). 74<sup>th</sup> Annual meeting, Association of Southeastern Biologists, Charleston, WV, April 10-13.
- Hillard\*, EM and LE **DeWald**. 2013. Elk (*Cervus elaphus*) habitat use in Great Smoky Mountain National Park. 74<sup>th</sup> Annual meeting, Assoc. Southeastern Biologists, Charleston, WV, April 10-13.
- Hillard\*, EM and LE **DeWald**. 2013. Elk (*Cervus elaphus*) habitat use in Great Smoky Mountain National Park. Great Smoky Mountain National Park Science Colloquium, Gatlinburg, TN March 21
- Collins, B and LE **DeWald**. 2012. Investigating near-ground climate in contrasting sites. Poster Presentation. 4<sup>th</sup> Annual Faculty Scholarship Celebration, Western Carolina University. Feb. 16
- Torgerson\*, J and LE **DeWald**. 2012. Genetic variation in *Hydrastis canadensis* populations in western North Carolina. 73<sup>rd</sup> Annual meeting of the Association of Southeastern Biologists Univ. Georgia, Athens GA April 4-7
- Dixon\*, G and LE **DeWald**. 2012. Clonal dynamics and decline of trembling aspen (*Populus tremuloides* Michx.) in the Kaibab National Forest, Arizona. 73<sup>rd</sup> Annual meeting Assoc. SE Biologists Univ. Georgia, Athens GA April 4-7
- DeWald, LE**. 2012. *Getting students to read and think: Using popular literature in an introductory Natural Resources course*. 9<sup>th</sup> Biennial Conference on University Education in Natural Resources. March 22-24, Colorado State Univ. Fort Collins, CO
- DeWald, LE (Invited)** 2011. *Existing SAF accreditation standards and proposed standards in Terrestrial Ecosystem Management. Workshop on the Future of Forestry Education. Society of American Foresters National Convention, Nov. 2-6, Honolulu, HI.*
- DeWald, LE and KM Hoffman\***. 2011. Patterns of recruitment and young culm morphology in *Arundinaria gigantea* canebrakes in western North Carolina. Southern Appalachian Man & the Biosphere Conference, Nov. 15-17, Asheville, NC
- Torgerson\*, J and LE **DeWald**. 2011. Genetic variation in *Hydrastis canadensis* populations in western North Carolina. Southern Appalachian Man & the Biosphere Conference, Nov. 15-17, Asheville, NC
- DeWald, LE**. 2011. **(Invited)** Augmenting natural medicinal plant populations with local or non-local plants: The good, bad and ugly. Southern Appalachian Man and the Biosphere Conference, Nov. 15-17, Asheville, NC
- Hoffman\*, Keith and LE **DeWald**. 2010. Patterns of recruitment and culm morphology in *Arundinaria gigantea*. Assoc. SE Biologists Annual Meeting, April 7-10, Asheville, NC
- DeWald, LE, T Clark and Keith Blatner**. 2010. *Standing our ground: The meaning of SAF accreditation*. 8<sup>th</sup> Biennial Conf. on University Education in Natural Resources. March 25-27, Blacksburg, VA

**\*\*74 additional professional presentations from 1999-2009 (20 = invited, 8 = teaching related), titles and presentation details available on request**

**TEACHING EXPERIENCE – Courses taught & graduate students advised (\*=created new course)**

**Western Carolina University (2004 - 2019)**

Undergraduate: Genetics and Evolution, \*Issues in Environmental Science, \*Ecological Restoration, \*Conservation Biology, Introduction to Natural Resource Conservation (General education course, face-to-face and \*online sections), \*Introduction and Approaches to Environmental Science, Environmental Biology, Forest Ecology, Dendrology, Forest Measurements Laboratory

Graduate: \*Ecological Restoration, \*Conservation Biology, \*Ecological Genetics

**Northern Arizona University (1994 - 2004)**

Graduate: \*Forest Ecological Genetics, \*Forest Conservation Biology, Multi-resource Forest Mgt Principles, \*Teaching Practicum, \*Professional Seminar, \*Ecosystem Restoration and Conservation

Undergraduate: Introduction to Forestry, \*Web-based Introduction to Forestry, Arizona Forests and Wildlife, \*Introduction to Conservation Biology, Forest and Range Plant Taxonomy, Forest Ecology, Dendrology, \*Stream Eco-hydrology, Undergraduate Research. Coordinator of the Junior-level professional forestry fall semester (16 credits) for 4 years.

**Green River Community College (1992-1994)**

Undergraduate: \*Wildlife Habitat Management, \*Stream and Wetland Ecology, \*Wildland Recreation, Introduction to Forestry, Silvicultural Analysis, Tree and Shrub Identification, Forest Measurements II: Navigation & Mapping, Forestry Coop Education, General Biology, Plant Biology

**Warren Wilson College (1989 – 1992)**

Undergraduate: \*Forest Biology, Genetics, Biochemistry, General Biology (Botany), General Biology (Ecology), Natural Resource Conservation, Environmental Policy, Soil Science, Geology, \*Summer Forestry: Silviculture, Measurement and Surveying, Forest Management

**Virginia Polytechnic Institute and State University (1982 – 1986)**

Undergraduate: Dendrology laboratory, Silviculture laboratory, Forest Ecology laboratory

**Graduate Students Mentored**

<b>Western Carolina University – Biology Department</b>			Graduation
M. Wind	MS	Dendroecology of Carolina Hemlock Stands	Ongoing
C. Luttrell	MS	Comparison of Cottontail Habitat in Thinned and Unthinned Stands	Ongoing
A. Hawk	MS	Comparing Maxent and DOMAIN habitat modeling of the rare <i>Trillium simile</i>	Dec. 2016
T. Green	MS	Early succession habitat and canopy opening size in the Nantahala NF	Dec. 2016
S. Binninger	MS	Fire Severity and herbaceous plant Community Responses GSMNP	May 2016
K. Bennett	MS	Phenotypic and genetic variation in eastern NC fox squirrel populations	Aug. 2016
A. Montgomery	MS	Using Maxent to predict <i>Isotria medeoloides</i> habitat in the S. Apps.	Dec. 2014
S. Abila	MS	Fire Severity and Woody Plant Community Responses GSMNP	Dec. 2014
L. Hillard	MS	Elk habitat use in Great Smoky Mountains National Park	Aug. 2013
A. Palette	MS	Germination ecology of <i>Helonias bullata</i> (co-advised with B. Collins)	May 2013
G. Dixon	MS	Genetic diversity and decline in <i>Populus tremuloides</i> stands in Arizona	Aug. 2012
J. Togerson	MS	Alkaloid and genetic variation among goldenseal populations	Aug. 2012
N. Shipman	MS	Sensory cues for pollination visitors of <i>Trillium cuneatum</i>	Aug. 2011
K. Hoffman	MS	Patterns of recruitment and culm morphology in river cane canebrakes	Dec. 2010
S. Grant	MS	Genetic diversity of northern red oak in western NC	Dec. 2010
J. Falcone	MS	Arthropod-avian assemblages in insecticide-treated and untreated eastern hemlock stands in GSMNP	May 2009
J. Extine	MS	Evaluation of potential habitat in golf courses in western NC	Dec. 2008
C. Lett	MS	Phosphorus and mycorrhizae effects on growth of <i>Celastrus orbiculatus</i>	May 2008
<b>Northern Arizona University – School of Forestry</b>			
H. Zhang	PhD	Genetic variation in native ponderosa pine understory grass species	Dec. 2009
J. Busco	MS	Establishing Junegrass and muttongrass in SW ponderosa pine forests	Dec. 2005
D. Crisp	MS	Survival and recruitment of bull thistle after pile burning and litter removal	May 2004
B. McRae	PhD	Integrating landscape ecology and population genetics	May 2004
B. Nowicki	MS	Genetic diversity and dwarf mistletoe resistance in SW Douglas-fir	Dec. 2003
E. Bressler	MS	Genetic variation of isolated Douglas-fir in SW N. America and N. Mexico	May 2003
S. Swope	MS	Exotic plant invasions in relation to diversity, limiting resources and livestock grazing in Arizona grasslands	May 2003
K. Kolanoski	MS	Genetic variation of ponderosa pine in N. AZ: Implications for restoration	May 2002
M. White	PhD	Changes in subalpine and montane grasslands, Apache-Sitgreaves NF, AZ	Dec. 2002
D. Fischer	MS	Transpiration and canopy conductance of ponderosa pine and limber pine in a high-elevation prairie	May 2001
J. Steed	MS	Evaluation of sedge species for use in restoration of SW riparian meadows	Aug. 2001
S. Church	MS	Response of Bebb willow to riparian restoration, Hart Prairie, Arizona	Aug. 2000
L. Moser	MS	Genetic structure and variation in a southwestern Douglas-fir population	May 1999
J. Zimmerman	MS	Plant diversity in the Pumphouse Wash canyon system, Coconino Co., AZ	May 1997
E. Naumburg	MS	Shade response of five grass species of southwestern ponderosa pine forests	Aug. 1996
<b>Northern Arizona University – Environmental Science and Policy</b>			
E. Soller	MS	Using native seed for re-vegetation: science and policy	Dec. 2003
A. Richey	MS	Development of a rapid riparian assessment tool	Dec. 2005

## SERVICE

### University of Kentucky

Developed and organized an interactive poster session, and poster judging at the 35<sup>th</sup> Southern Tree Improvement Conference, Lexington KY, June 3-6, 2019

### Western Carolina University

#### **Environmental Science Program**

Director (2006-2016), member of Environmental Science Executive Committee (2004-2019). Responsible

for all administration, budget, recruiting, curriculum and educational responsibilities for the Environmental Science Program.

### **Geosciences and Natural Resources Department Committees**

Faculty affairs 2006-2007, 2015-2016, 2019

Tenure and Promotion, and Annual Faculty Evaluations 2008-2019 (except 2017-2018 on sabbatical)

Collegial Review Document creation and revisions

Faculty Search Committees: Landscape Ecology & GIS 2006, Wildlife and GIS faculty search 2016

### **Biology Department Committees**

Greenhouse committee 2011-2014

Tenure and Promotion, and Annual Faculty Evaluations 2007-2011

Faculty Search Committees: Terrestrial Zoologist (2005), Community Ecologist (2005)

### **College of Arts and Sciences Committees**

Tenure and Promotion 2015, 2016, 2018

Engagement Strategy 2012

Dean's Advisory Board 2011-2012

Faculty Search Committee: Science Education 2012

### **University Committees and Other Service**

Graduate Council 2009- 2012, Chair, Curriculum subcommittee

Master Planning Task Force: Sustainable Campus Committee 2011-2013

Sustainability Office: Liaison for UNC sustainability efforts related to education 2014-2019

Office of Institutional Planning and Effectiveness & Coulter Faculty Commons: Faculty Associate for Assessment to improve assessment knowledge on campus 2015-2016

Scholarly Development Assignment (Sabbatical) proposal review committee 2011-2014

Provost's Office: Research Grant Review Committee (2005-2008, 2014) and L.E.A.R.N Freshman Research Program (2016)

Internal member of Program Review committees: Writing Center Program (2012), Recycling and Surplus Program (2016)

Moderator, Annual Graduate Research Symposium, nearly all years 2007-2019

Quality Enhancement Plan Assessment Team (2010)

Liberal Studies Assessment Team (2008)

**Service activities at Northern Arizona University, Green River Community College and Warren Wilson College available on request**

**Professional Service:**

**Society of American Foresters**

Moderator and/or organized technical sessions and/or judged student posters and oral presentations at National Conventions in 2019, 2014, 2003, 2002, 2001, 1996  
Education Policy and Review National Committee 2013-2015  
National Committee on Accreditation: 2003-2006, 2008-2013, Chair, 2009-2012  
National Task Force for developing new natural resources accreditation standards 2009-2012  
Appalachian Region Fellows Award Review Committee 2009-2014 (chair 2014)  
Chair, Nantahala Chapter and member SAF NC Executive Committee 2007-2011  
Chair, Science and Technology Committee, NC Division SAF 2007  
SW Section SAF leadership positions 2001-2003  
SAF D1 (Tree Improvement and Genetics) Working Group leadership positions 2001-2006  
Northern Arizona University representative to the National Office (1996-2004)

**Peer Reviewer**

**Journals:**

Restoration Ecology, Forest Science, Biological Conservation, Ecology and Society, Forest Science, Journal Vegetation Science, Ecohydrology, Western North American Naturalist, American Journal Experimental Agriculture, Journal Insect Science, International Journal Plant Sciences, Castanea, Southeastern Naturalist, America Journal of Botany, Annals of Botany, Theoretical and Applied Genetics, Canadian Journal Botany, Canadian Journal Forest Research, Phytopathology, Applied Vegetation Science, Wetlands Journal, Restoration Ecology, Forest Ecology and Management, Forests, New Forests

**Books and Textbooks:**

Conservation Biology, Oxford Press (2018-2019)  
Genetics: A Conceptual Approach, 4<sup>th</sup> edition, WH Freeman Publishers (2009)  
Environmental Science, John Wiley & Sons (2008 and 2012)  
Forest Ecology (Kimmins), Prentice Hall Biology Inc.  
Schoolyard Habitat Handbook, AZ Game and Fish Heritage  
Beyond Ponderosa, Flagstaff Community Tree Board

**Research Grants:**

USDA MacIntire-Stennis (4 years),

**US Forest Service Programs:**

Rocky Mountain Research Station, Southern Research Station

**Advisory Committee:**

Presidential Council of Alumnae (women in STEM) advisory committee to the President of Michigan Technological University 2005 - Present

### **Facilitator and/or Program Planning for Workshops and Conferences**

- **Workshop developer and facilitator:** Environmental Science Department, Tennessee Technical University: Curriculum and Capstone Development workshop 2016
- **Program Chair and Planning Committee,** Association of Southeastern Biologists Annual Meeting, Asheville, NC April 7-10, 2010
- **Facilitator:** Cullowhee Native Plant Conference – Tree Identification fieldtrip 2011 - 2017
- **Facilitator:** Coulter Faculty Commons for Excellence in Teaching and Learning (WCU):
  - Summer Institute on Teaching and Learning: 2005, 2006, 2007, 2011, 2014, 2015
  - Scholarship of Teaching and Learning: 2005, 2006
  - A retreat of Interdisciplinary Scholarship 2014
- **Co-Chair:** SAF NC Division Meeting, Waynesville, NC, June 6-8 2007
- **Instructor and Workshop Developer** (with Dr. Patricia Bricker, WCU): Inquiry-based science instruction: A professional development workshop for Alleghany County elementary and middle-school teachers. July 10-14, Sept. 1 2006 and March 4-6 and June 3-5, 2007 Sparta, NC
- **Co-Chair:** Natural Resource Education for a Culturally Diverse Audience. 5<sup>th</sup> Biennial Conference on University Education in Natural Resources, Flagstaff, AZ, March 14-17, 2004.
- **Facilitator:** Learner-Centered Education – Arizona Tri-University Project on Learner Centered Education Techniques and course development. June and August 2003.
- **Chair,** Western Forest Genetics Association Annual Meeting, Flagstaff, AZ, 1999
- **Facilitator:** Re-examining University Science Teaching and Slice of Life Project Forum II. National Science Foundation Forum, Northern Arizona University, 1995 and 1997
- **Facilitator:** The Art and Craft of Teaching. Northern Arizona University, July 1-Aug. 7, 1996. (published in 1996 NAU “Horizons” magazine: “Beyond books: where research fits in”).

### **SPECIAL RECOGNITION:**

First Year Experience Advocate Award (, 2014, 2015, 2016)

Chancellor’s Academic Success Facilitator (2016)

Poster presentations based on Environmental Science Capstone projects won 1<sup>st</sup> or 2<sup>nd</sup> place awards at the UNC System Energy Summits at Appalachian State University in 2013, 2014, 2015, 2017

Semi-finalist for College of Arts and Sciences Teaching Award (2013-2014)

MS Graduate student advised received WCU Karen Nicholson Best Thesis Award (2011)

Certificate of Appreciation: WCU Dept. Residential Living and Resident Success Program

Elected Society of American Foresters Fellow (2008)

Certificate of Appreciation Appalachian SAF (2008)

Appointed to Michigan Technological University’s Presidential Council of Alumnae (2005)

Outstanding female alumni who advise President of the University)

Invited participant Wakonse Arizona: workshop providing inspiration and support for college teaching (May, 20-23, 2004)

Outstanding Professor of the Year NAU College of Ecosystem Science and Management (2003-2004)

Nominated for Teaching Scholar Award, Northern Arizona University (1998)

Nominated for American Association for State Colleges of Agriculture and Renewable Resources

Outstanding Teacher Award (1998)

**MAJOR PROFESSIONAL DEVELOPMENT ACTIVITIES:**

Leadership Academy: Coulter Faculty Commons, 2013-2014

Leadership Retreat: Coulter Faculty Commons, May 31, 2011

Society of American Foresters Leadership Academy, Nebraska City, NE, May 19-23, 2001

Green River Community College 1993. Five-year vocational certificate in Forestry Technology.  
Auburn, WA. Feb. 9, 1993

Leadership and Supervisory Skills for Women. 1992. National Businesswomen's Leadership  
Association, and National Seminars, Inc. Asheville, NC May 1992

Community and Technical College Education. 1992. Western Washington University, Woodring  
College of Education and the State Board for Community and Technical Colleges. Carson  
Conference Center, Ellensburg, WA Sept. 8-11, 1992

Basics of Forestry Finance. 1992. Forest Resources Continuing Education Program, College of  
Forest and Recreation Resources, Clemson University. Columbia, SC March 12, 1992