

EDUCATION

University of Arizona, Tucson, Arizona
Ph.D., Department of Ecology and Evolutionary Biology, 2001
Dissertation title: Evolution of floral traits: biogeography, pollination biology, and phylogenetics of *Macromeria*
Dissertation advisor: Dr. Lucinda A. McDade

Antioch New England Graduate School, Keene, New Hampshire
Master of Science degree in Environmental Studies, 1995
Thesis title: Density-dependent competition in two species of *Drosera*
Thesis advisor: Dr. Thomas Wessels

Earlham College, Richmond, Indiana
Bachelor of Arts degree in Biology, 1989

EXPERIENCE

WARREN WILSON COLLEGE, Asheville, North Carolina
Faculty in Biology, Environmental Studies and Science Education:
Taught courses in general biology and field natural history, plant taxonomy, plant anatomy and morphology, evolutionary biology, human biology, ecology, tropical biology, science education, pollination biology, conservation biology, and introduction to environmental studies, as well as supervising student research and providing coordination and advising for students interested in teaching science. (2001-present)
Chair of Division of Natural Sciences, 2015-2020
Chair of Biology Department, 2009-2013

COLLABORATION FOR THE ADVANCEMENT OF TEACHING TECHNOLOGY AND SCIENCE, University of Arizona, Tucson, Arizona
NSF Science Education Fellow: Worked with two public elementary schools to develop inquiry-based science projects based on the GLOBE program (2000);

UNIVERSITY OF ARIZONA, Tucson, Arizona
Teaching Assistant: Taught courses in ecology, systematic botany, introductory biology, environmental outreach, marine discovery for elementary classes, and secondary biology curriculum (1996-1999).

PRESCOTT COLLEGE, Tucson, Arizona
Instructor/Mentor: Served as an instructor/mentor for student coursework in ecology and environmental studies (1999).

DISCOVER PROJECT, University of Arizona, Tucson, Arizona
Science Education Consultant: Worked with a DISCOVER project researcher to develop assessment tool for naturalist intelligence according to Howard Gardner's multiple intelligences theory (1998).

TALENT IDENTIFICATION PROGRAM, Duke University, Durham, North Carolina
Group Leader/Instructor: Taught field course in ecology, geology and natural history in Costa Rica for exceptionally talented high school students (1996).

FRANKLIN PIERCE COLLEGE, Rindge, New Hampshire
Adjunct Faculty: Taught biology, environmental science, and interdisciplinary courses to undergraduates; designed and piloted a course on study skills in biology (1991-1995).

KEENE STATE COLLEGE, Keene, New Hampshire
Adjunct Faculty: Taught human biology courses to undergraduates (1995).

FRANKLIN PIERCE COLLEGE, Rindge, New Hampshire
Laboratory Supervisor: Set up and maintained labs for biology courses; ordered and inventoried materials and equipment for natural sciences division (1991-1993).

HARVARD FOREST, Petersham, Massachusetts
Research Assistant: Conducted field research, statistical analysis and writing for publication for ongoing projects at the Forest, including studies of woody plant phenology and regeneration after clearcutting (1994).

CENTER FOR HUMAN SERVICES, Gettysburg, Pennsylvania
Instructor: Taught English as a Second Language to Mexican migrant workers, in group classes and one-on-one tutoring; supervised independent study; coordinated ESL staff and volunteers (1990-1991).

THE MEETING SCHOOL, Rindge, New Hampshire
an alternative boarding high school
Teacher: Developed and taught courses in ecology, human biology, general biology, folk dancing and ceramics; tutored algebra and precalculus (1989-1990).

BIOLOGY DEPARTMENT, Earlham College, Richmond Indiana
Teaching Assistant: Taught labs for Ecological Biology, Field Botany, Genetics and Evolution (1987-1989).
Plant Ecology Research Assistant: Assisted in field work, statistical analysis, library research, and writing of papers for publication (1988).

JOSEPH MOORE MUSEUM, Earlham College, Richmond, Indiana
Curator of Teaching Collection: Cared for natural history specimens used for educational purposes; computerized collection records (1987-1989).
Tour Coordinator: Planned and coordinated tours for area school groups; trained tour guides (1986).

FELLOWSHIPS AND GRANTS

- 2020: Appalachian College Association Faculty Development Fellowship
- 2020: Section 6 Grant for Research on Threatened and Endangered Arizona Plants, US Fish and Wildlife Service and Arizona Department of Agriculture
- 2019-2020: QEP Diversity Fellowship, Warren Wilson College
- 2019: Alice Zawadzki Land Conservation Fund grant from North Carolina Native Plant Society
- 2018: G. D. Davidson Grant to support student interns for summer research

- 2015-2018: NSF Improving Undergraduate Science Education Grant, in collaboration with colleagues from Warren Wilson College, Appalachian State University, University of North Carolina-Asheville, and Eastern Tennessee State University
- 2014: Appalachian College Association Faculty Development Fellowship
- 2012: Innovative Technology for Student Learning Grant, Warren Wilson College
- 2011-2012: Service Learning Faculty Fellowship, Warren Wilson College
- 2008-2012: NSF Research in Ecology Grant, in collaboration with Dr. Michelle Zjhra (Georgia Southern University) and Dr. Robert Raguso (Cornell University)
- 2007: Appalachian College Association Faculty Development Fellowship
- 2002: Kenan Fellowship for College Professors, National Tropical Botanical Gardens
- 2000: Collaboration for Advancement in Teaching Technology and Science (CATTS), graduate fellowship
- 1999: Research Training Group in Analysis of Biological Diversification, small research grant
- 1998: T & E, Inc. Grant for Conservation Biology Research
- 1998: ASPT Graduate Student Research Grant
- 1998: Research Training Group in Analysis of Biological Diversification, graduate fellowship
- 1997: University of Arizona Dept. of Ecology and Evolutionary Biology research grant
- 1997: Research Training Group in Analysis of Biological Diversification, small research grant
- 1996: University of Arizona Dept. of Ecology and Evolutionary Biology research grant
- 1995: Flinn Foundation Biology Fellowship
- 1995: Research Training Group in Analysis of Biological Diversification, graduate fellowship

PRESENTATIONS

- 2022: Poster presentation, Ecological Society of America meetings, Montreal, Quebec, Canada
- 2022: Invited presentation: "Creative Ecology", Ecological Society of America meetings, Montreal, Quebec, Canada
- 2021: Invited presentation, Adventures in Field Research Symposium, Lincoln Memorial University, Harrogate, TN
- 2019: Workshop, Association of Southeastern Biologists, Memphis, TN
- 2018: Biology Department, University of North Carolina-Asheville, NC
- 2018: Asheville Science Tavern, Asheville, NC
- 2017: Meetings of the Ecological Society of America, Portland, OR
- 2016: Natural Science Seminar, Warren Wilson College, Swannanoa, NC
- 2014: Association of College and University Biology Educators, Portland, OR
- 2013: Symbiosis: Art/Science Collaboration meeting, Swannanoa, NC
- 2012: Asheville Chapter of Sigma Xi, Swannanoa, NC
- 2011: Biology Department, University of North Carolina-Asheville, NC
- 2010: Association for Biology Laboratory Education, Halifax, NS, Canada
- 2005: Kenan Fellowship Conference, National Tropical Botanical Gardens, Miami, FL
- 2002: Meetings of the Botanical Society of America, Madison, WI
- 2000: School and Community Gardens Regional Conference, Phoenix, AZ
- 2000: Meetings of the Botanical Society of America, Portland, OR
- 1999: Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ.
- 1999: Symposium on bird-plant mutualisms in the neotropics, Monterrey, Nuevo Leon, Mexico.
- 1999: Southwestern Association of Biologists, Abiquiu, NM.
- 1998: Research Training Group in Biological Diversification, Tucson, AZ.

AWARDS

- 2006: Faculty Teaching Excellence Award, Warren Wilson College
- 2006: Faculty Service Learning Award, Warren Wilson College

VOLUNTEER COMMUNITY INVOLVEMENT

- 2019: Floristic study of Christmount Preserve, Black Mountain, NC

Amy Boyd, page 4
Curriculum Vitae

- 2017: worked with students to create educational website about plants and pollinators for the Natural Impact Initiative at Owen Middle School, Black Mountain, NC
- 2015: provided a series of 6 lab experiences for 7th-8th grade students for The Learning Community School, Black Mountain, NC
- 2014-present: Floristic study of the Sandy Bottom Wetlands Preserve, Asheville, NC
- 2008-2015: Scientist Mentor for PlantingScience (online school science mentoring program)
- 2003-present: Science Fair judge, various Asheville area schools
- 2006-07: Evaluator for Asheville High School Senior Exit Projects
- 2001-04: Consultant for development of rare plant monitoring protocols, The Nature Conservancy, Southeast Mountain Region, NC
- 2001: Science Olympiad coaching, Owen Middle School, Swannanoa, NC
- 1999: Arizona State Science Fair judge
- 1999: Environmental education consultant, Girls at the Center program, Tucson, AZ.
- 1999: Environmental education consultant and teacher trainer, Girls in the SYSTEM program, Tucson, AZ.
- 1998-1999: Environmental education curriculum committee, Earth Matters! program, Sahuaro Girl Scout Council, Tucson, AZ.
- 1998: Database manager, The Nature Conservancy, Tucson, AZ

PUBLICATIONS

- Boyd, A. E. 2022. Vigil. *Dark Mountain, Issue 22: Ark*.
- Boyd, A. E. 2022. The sudden fate of succulent thieves. *Still Point Arts Quarterly, Issue 46: Gardening: An Instrument of Grace*.
- Boyd, A. E. 2022. Altered axis. *Consilience Journal, Issue 8: Entropy*.
- Boyd, A. E. 2022. Missed rendezvous. *Whole Terrain: Journal of Reflective Environmental Practice, Issue 24: About time*.
- Hiatt, A.C., A.A. Hove, J.R. Ward, L. Ventura, H.S. Neufeld, A.E. Boyd, H.D. Clarke, J.L. Horton, Z.E. Murrell. 2021. Authentic research in the classroom increases appreciation for plants in undergraduate biology students. *Integrative and Comparative Biology* 61(3): 969-980; <https://doi.org/10.1093/icb/icab089>.
- Boyd, A. E., L. Doyle, S. Lusardi and G.A. Goliszek. 2021. Vascular flora of the Christmount Preserve. *Castanea* 86(2): 185–195.
- McIntosh, M. E., A. E. Boyd, A. E. Arnold, and L. A. McDade. 2019. Continuing decline in a local population of the endangered Nichol's Turk's Head Cactus, *Echinocactus horzonthalonius* var. *Nicholii*. *Plant Species Biology* 2019: 1-10.
- Boyd, A. E. 2017. Timing, pollinators, and the impact of climate change. Union of Concerned Scientists Blog. Stable URL: <http://blog.ucsusa.org/science-blogger/timing-pollinators-and-the-impact-of-climate-change>.
- Boyd, A. E. 2017. Highlands, Hellbenders, and History: Exploring the rich biodiversity of the Blue Ridge Mountains. *Journal of the Guild of Natural Science Illustrators* vol. 48, no. 3.
- Boyd, A. E., and A. Preusser. 2016. Vascular Flora of the Sandy Bottom Wetland Preserve, Buncombe County, North Carolina. *Castanea* 81(4): 323-332.

Amy Boyd, page 5
Curriculum Vitae

Boyd, A. E., and I. M. Thalmayer. 2014. Phylogenetic relationships within *Uvularia* (Colchicaceae) based on morphology. *Journal of the North Carolina Academy of Science* 130: 116-121.

McIntosh, M. E., L. A. McDade, A. E. Boyd, and P. D. Jenkins. 2011. Patterns of growth and mortality in the endangered Nichol's Turk's head cactus (*Echinocactus horizonthalonius* var. *Nicholii* L. Benson; Cactaceae) in southeastern Arizona, 1995-2008. *Southwestern Naturalist* 56(3): 333-340.

Boyd, A. E., and A. L. Monroe. 2010. Vascular Flora of the Warren Wilson College Campus, Swannanoa, North Carolina. *Castanea, Journal of the Southern Appalachian Botanical Society* 75(3):353-365.

McIntosh, M. E., L. A. McDade, A. E. Boyd, and P. D. Jenkins. 2008. Patterns of Growth and Mortality in the Endangered Nichol's Turk's Head Cactus (*Echinocactus horizonthalonius* var. *Nicholii* L. Benson; Cactaceae) in Southeastern Arizona. *Southwestern rare and endangered plants: proceedings of the fourth conference, March 22-26, 2004, Las Cruces, NM.* USDA/Forest Service.

Boyd, A. E. 2008. Collecting for education: herbaria at small liberal arts colleges. *Plant Science Bulletin* 54(3):86-91.

Maker, N. F., and A. E. Boyd, 2008. Basal area and form class relationship for small-diameter loblolly pine (*Pinus taeda*) in the North Carolina piedmont. *Journal of the North Carolina Academy of Science* 124(3): 98-101.

Rawleigh, S. O., and A. E. Boyd, 2008. Comparison of homemade and conventional sprays as aphid control on lettuce. *Journal of the North Carolina Academy of Science* 124(2): 53-57.

Boyd, A. E. 2006. Plants and perpetrators: forensic investigation in the botany classroom. *American Biology Teacher* 68 (9): online article; stable URL: www.nabt.org/sites/S1/File/pdf/068-09-0025.pdf.

Boyd, A. E. 2004. Breeding system of *Macromeria viridiflora* (Boraginaceae) and geographic variation in pollinator assemblages. *American Journal of Botany* 91: 1809-1813.

Boyd, A. E., and J. Cooper. 2004. The needs of trees. *Science Activities* 41: 17-21.

Boyd, A. E. 2003. Phylogenetic relationships and corolla size evolution in *Macromeria viridiflora* (Boraginaceae). *Systematic Botany* 28: 118-129.

Boyd, A.E. 2002. Morphological analysis of Sky Island populations of *Macromeria viridiflora* (Boraginaceae). *Systematic Botany* 27: 116-126.

Slentz, S., Boyd, A.E., and McDade, L. A. 1999. Morphological differentiation among Madrean sky island populations of *Castilleja austromontana* (Scrophulariaceae). *Madroño* 46(2): 100-111.

Smith, B., Forman, P. D., and Boyd, A. E. 1989. Spatial patterns of seed dispersal and predation of two myrmecochorous forest herbs. *Ecology* 70(6): 1649-1656.

Book Reviews Published:

Review of book: *Care of the Species: Races of Corn and the Science of Plant Biodiversity*, by John Hartigan, Jr., University of Minnesota Press. Review published in *Plant Science Bulletin*, Spring 2019, vol. 65, no. 1, pp. 60-61.

Review of book: *Mosses, Liverworts, and Hornworts: A Field Guide to Common Bryophytes of the Northeast*, by Ralph Pope, Cornell University Press. Review published in *Plant Sciences Bulletin*, Fall 2017, vol. 63, no. 3, pp. 177-179

Review of book: *Name those grasses: identifying grasses, sedges and rushes*, by Ian Clarke, Review published in *Plant Sciences Bulletin*, Spring 2017, vol. 63, no. 1, pp. 51-52.

Review of book: *Weeds of North America*, by Richard Dickinson and France Royer, University of Chicago Press, 2014. Review published in *Plant Science Bulletin*, Summer 2015, vol. 61 no. 2 pp. 77-78.
Amy Boyd, page 6
Curriculum Vitae

Review of book: *The Olmsted Parks of Louisville: A Botanical Field Guide*, by Patricia Dalton Haragan, University Press of Kentucky. Review published in *Plant Science Bulletin*, Spring 2015, vol. 61 no. 1 pp. 24-25.

Review of book: *Pecans: the Story in a Nutshell* by Jane Manaster, Texas Tech University Press. Published in *Plant Science Bulletin*, Winter 2009.