

## DEBORAH ANN (DEB) QUALLS LEWIS

### BUSINESS ADDRESS:

Ada Hayden Herbarium  
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### EDUCATION:

University of North Carolina, Chapel Hill – M.A., Botany, 1984  
[Thesis: Qualls, D.A. 1984. A taxonomic revision of the New World species of *Lindernia* All. (Scrophulariaceae). Master's thesis, Department of Biology, University of North Carolina]  
Arkansas Tech University, Russellville – B.S., Biology, 1981 [with honors]

### EMPLOYMENT:

1984 - present – Curator of the Ada Hayden Herbarium, Department of Ecology, Evolution and Organismal Biology, Iowa State University (Professional & Scientific Classification)  
1984 - 1993 – Curator I  
1993 - 2013 – Curator II  
2013 - present – Curator III  
1981 - 1984 – Teaching Assistant, Department of Biology, University of North Carolina, Chapel Hill  
1978 - 1981 – Student Ranger (Cooperative Program Internship, summers only) and Park Ranger, Greers Ferry Resident Office, U.S. Army Corps of Engineers, Heber Springs, AR  
1980 - Senior Fellow, Biological Sciences Department, Arkansas Tech University, Russellville  
1976 - 1978 – Park Attendant, Nimrod Lake Resident Office, U.S. Army Corps of Engineers, Plainview, AR

### AWARDS AND RECOGNITION:

Recipient, 2010, *Olav Smedal Conservation Award*, Ames Chapter of the Izaak Walton League of America and Story County Conservation  
Co-recipient (with J.D. Thompson and W.R. Norris), 2010 *Richard and Minnie Windler Award* (for best systematics paper in the journal *Castanea*), Southern Appalachian Botanical Society  
Gubernatorial Appointment, 2006 and 2009, State Preserves Advisory Board, State of Iowa, 2006 - 2012, board chair – 2010 - 2012  
Fellow, Iowa Academy of Science  
Recipient, 2003, *Professional and Scientific Award of Excellence*, College of Liberal Arts and Sciences, Iowa State University  
Recipient, 2000, *Richard and Minnie Windler Award* (for best systematics paper in the journal *Castanea*), Southern Appalachian Botanical Society  
Recipient, 1996, *Footsteps to Follow Award*, Association for Women in Science, Central Iowa Chapter  
Recipient, 1980, District Engineer's Certificate for performance of special service, U.S. Army Corps of Engineers, Little Rock District  
Member, Alpha Chi Honor Society, Arkansas Tech University  
Member, Cardinal Key National Honor Society, Arkansas Tech University

**PROFESSIONAL SOCIETIES [Including offices held/committees]:**

Iowa Academy of Science [Fellow; Member of the Board of Directors (2005 - 2008); Botany Section vice-chair (1995 - 1996, 2003 - 2004), chair (1996 - 1997, 2004 - 2005); member of the Parish Farm Committee (1998 - 2000; chair, 1999 - 2000); member of the Membership Committee (2001 - 2005); member of the Honors and Awards Committee (2008 - 2011)]

Iowa Native Plant Society [Co-founder (1995), Secretary (1996), Historian and Co-editor of the Newsletter (1997 - present)]

Iowa Natural History Association [Secretary and Newsletter Editor (2004 - 2009)]

Iowa Prairie Network, Central Iowa Region [Winter meeting organizing committee (2000 - present)]

Society for the Preservation of Natural History Collections [Workshop organizing committee (1995)]

Southern Appalachian Botanical Society

The Nature Conservancy, Iowa Chapter

**RESEARCH INTERESTS:**

Floristics – Flora of Iowa (including as collaborator on current projects on the flora and ecology of Mossy Glen State Preserve, Richard Pohl Memorial State Preserve/Ames High School Prairie, and Backbone State Park)

Revisionary plant taxonomy – revisionary and floristic studies of *Lindernia* and related genera (Linderniaceae) of the Western Hemisphere; Burmanniaceae of North America

Herbarium curation techniques and philosophy – archival storage and pest control methods; increased utilization of herbaria

Botanical history, especially biographical studies of Iowa botanists

**PROFESSIONAL AND PUBLIC SERVICE ACTIVITIES:**

Regional reviewer (Iowa and Midwest), *Flora of North America* (1996 - present)

Identification of Iowa weeds and native plants; assist ISU Cooperative Extension Service with botany-related queries (on-going)

Field trip and workshop leader for The Nature Conservancy, Iowa Chapter; Iowa Prairie Network; Iowa Native Plant Society; ISU Extension Master Gardeners program; etc. (on-going)

ISU Speakers' Bureau (herbarium tours and botanical presentations, 1999 - present)

Member of ISU Department of Ecology, Evolution and Organismal Biology Awards Committee (2004 - present)

Representative to Iowa Department of Natural Resources REAP Congress (2004, 2008)

Member of organizing committee and workshop leader, Master Conservationists program, Story Co. (Iowa) Conservation Board (1997 - 2004)

**PUBLICATIONS (REFEREED):**

Churchill, J.A. and D.A. Qualls. 1986. *Lindernia saxicola* M.A. Curtis (Scrophulariaceae) is not extinct. *Castanea* 51: 225.

Johnson-Groh, C.L., D.Q. Lewis and J.F. Shearer. 1987. Vegetation communities and flora of Dolliver State Park, Webster County, Iowa. *Proceedings of the Iowa Academy of Science* 94: 84-88.

Pohl, R.W. and D.Q. Lewis. 1988. Catalogue of the living collection of the Iowa State University Botany Department Greenhouses. *Journal of the Iowa Academy of Science* 95: 8-13.

Lewis, D.Q. 1998. A literature review and survey of the status of Iowa's terrestrial flora. *Journal of the Iowa Academy of Science* 105: 45-54.

Lewis, D.Q. and R. Herzberg. 1999. A new technique for drying and mounting spruce and hemlock specimens (brief communication), p. 361, in: *Managing the Modern Herbarium: An*

*interdisciplinary approach*. Society for the Preservation of Natural History Collections and the Royal Ontario Museum.

- Lewis, D.Q. 2000. A revision of the New World species of *Lindernia* All. (Scrophulariaceae). *Castanea* 65: 93-122.
- Lewis, D.Q. and R.O. Pope. 2001. An overview and management plan of Iowa's non-native, invasive, terrestrial forbs. *Journal of the Iowa Academy of Science* 108: 116-123.
- Norris, W.R., D.Q. Lewis, M.P. Widrechner, J.D. Thompson and R.O. Pope. 2001. Lessons from an inventory of the Ames, Iowa, flora (1859-2000). *Journal of the Iowa Academy of Science* 108: 34-63.
- Norris, W.R., M.P. Widrechner, D.Q. Lewis, J.D. Thompson and R.O. Pope. 2001. More than a century of change in the Ames, Iowa flora (1859-2000). *Journal of the Iowa Academy of Science* 108: 124-141.
- Welsh, S.L. and D.Q. Lewis. 2001. Duane Isely (1918-2000): A tribute. *Journal of the Iowa Academy of Science* 108: 64-69.
- Lewis, D.Q. 2001. Ada Hayden: Champion of Iowa prairies. *Proceedings of the 17<sup>th</sup> North American Prairie Conference* 215-219.
- Lewis, D.Q. 2002. Burmanniaceae. pp. 486-489. In: Flora of North America Editorial Committee (Eds.). *Flora of North America, Vol. 26: Magnoliophyta: Liliidae: Liliales and Orchidales*. Oxford University Press, New York.
- Norris, W.R. and D.Q. Lewis. 2006 (2007). Bixby State Park and Preserve: History, biota, roles in conservation, human impacts and future potential. *Journal of the Iowa Academy of Science* 113: 17-44.
- Lewis, D.Q. 2009. Dr. Lois Hattery Tiffany (1924-2009): In Memoriam. *Journal of the Iowa Academy of Science* 116: 44-48.
- Thompson, J.D., W.R. Norris and D.Q. Lewis. 2009. The vascular flora of Ledges State Park (Boone County, Iowa) revisited: Revelations and recommendations. *Castanea* 74: 390-423.
- Lewis, D.Q. 2012. *Lindernia* (Plantaginaceae). In: Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti and D.H. Wilken (Eds.) *The Jepson Manual: Vascular Plants of California, 2<sup>nd</sup> Edition*. University of California Press, Berkeley.
- Lewis, D.Q., C.C. Freeman, R.K. Rabeler and W.J. Elisens. Accepted. Linderniaceae. In: Flora of North America Editorial Committee (Eds.). *Flora of North America, Vol. 17: Magnoliophyta: Lamiales*. Oxford University Press, New York.
- Lewis, D.Q. Accepted. *Lindernia* and *Torenia*. In: Flora of North America Editorial Committee (Eds.). *Flora of North America, Vol. 17: Magnoliophyta: Lamiales*. Oxford University Press, New York. (Also a large number of abstracts, newsletter articles, and other non-refereed publications.)

#### **INVITED SEMINARS AND SYMPOSIA:**

- Symposium – “Charles Bessey”, Historical Section of the Botanical Society of America, Ames, IA, 1993.
- Symposium – “University Research Collections: Their History, Use and Preservation”, University of Iowa Collections Coalition, 1996.
- Symposium – “Perspectives on Iowa's Declining Flora and Fauna”, Iowa Academy of Science, Dubuque, IA, 1997.
- Invited speaker – “A Portrait of Women in Science” (annual lecture), Association for Women in Science, Central Iowa Chapter, Ames, IA, 1998.
- Invited speaker – “Carver and Pammel: Outstanding Student, Beloved Teacher, and Life-long Friends”, Iowa State University All-University Celebration of George Washington Carver, Ames, IA, 1998.
- Invited speaker – “Carver in the Sciences” (annual Carver Day lecture), George Washington Carver National Monument, Diamond, MO, 1999.

- Invited speaker – “Poisonous Plants”, Iowa Turfgrass Institute Conference and Trade Show, Des Moines, IA, 2000.
- Invited speaker – “For Measuring Sticks and Prairie Chickens... and For Us: The Concept of Iowa’s ‘Prairie Preserves’ Takes Root”, 17<sup>th</sup> North American Prairie Conference, Mason City, IA, 2000.
- Symposium – “Invasive Plants and Animals in Iowa”, Iowa Academy of Science Special Symposium, Ames, IA, 2000.
- Invited speaker – “For Measuring Sticks and Blazing Stars... and For Us: Iowa’s Conservation Heroes at Work”, Along the Skunk: 2007 Winter Armchair Presentation Series, Ames, IA, 2007.
- Invited speaker – “For Measuring Sticks and Blazing Stars... and For Us: Iowa’s Conservation Heroes at Work”, Loess Hills Prairie Seminar, Monona, IA, 2007.
- Invited speaker – “Carver and Pammel – Converging Paths on the Road to Success”, Celebrating the Legacy of George W. Carver Speaker Series, African-American Museum and Cultural Center of Iowa, Cedar Rapids, IA, and Des Moines, IA, 2008.
- Symposium (with Lynn G. Clark) – “Albert Hitchcock Presents – Adventures in Field Work, Types, and Grasses”, History of Botany: The Missouri Connection, Botany 2011, St. Louis, MO, 2011.
- Invited speaker – “Adventurer Charles C. Parry and the Botanical Expeditions to Pikes Peak”, Manitou Springs Heritage Center, CO, 2012.
- Invited speaker – “Fear not the key! Plant ID 101”, Iowa Weed Commissioners Invasive Species Conference, Ames, IA, 2015.

#### **OTHER PRESENTATIONS:**

- 1985 – “Amplification, integration and curation of the Fungus Herbarium” (Iowa Science Foundation grant-funded projects). Iowa Academy of Science Annual Meeting.
- 1986 – (with R.W. Pohl) “The Iowa State University Botany Department greenhouses: problems and solutions” (Botany Section). Iowa Academy of Science Annual Meeting.
- 1988 – “The genus *Lindernia* All. (Scrophulariaceae) in the New World” (Botany Section). Iowa Academy of Science Annual Meeting.
- 1988 – “The taxonomic status of *Lindernia saxicola* M.A. Curtis (Scrophulariaceae), a candidate for inclusion in the U.S. Fish & Wildlife Service List of Endangered Plant Species” (Botany Section). Iowa Academy of Science Annual Meeting.
- 1994 – “Considerations when rearranging and updating a mid- to large-size herbarium,” Association of Systematics Collections and Society for the Preservation of Natural History Collections Joint Meeting, St. Louis, MO.
- 1996 – “Preserving the harvest: the past, present and future of the Ada Hayden Herbarium.” Departmental seminar, Department of Botany, Iowa State University.
- 1997 – “The modern herbarium: not an oxymoron!” (Botany Section). Iowa Academy of Science Annual Meeting.
- 1999 – “Carver and Pammel: converging paths on the road to success” (“Interpreting the Legacy of George Washington Carver” mini-symposium, Agricultural Science). Iowa Academy of Science Annual Meeting.
- 2000 – (with W.R. Norris, M.P. Widrlechner, J.D. Thompson and R.O. Pope) “The dynamic flora of a Midwestern city 2: history of collecting the vascular flora of Ames, Iowa, since 1858” (Conservation Section). Iowa Academy of Science Annual Meeting.
- 2002 – “Floristic inventory of Ames, Iowa: New lessons from an old method”, 18<sup>th</sup> North American Prairie Conference, Kirksville, MO.

- 2003 – (with W.R. Norris) “A floristic inventory of Bixby State Park and Preserve and the implications of a diverse preserve for conservation in Iowa” (Botany Section). Iowa Academy of Science Annual Meeting, Des Moines, IA.
- 2004 – “Ada Hayden and the Ada Hayden Herbarium”, Golden K Kiwanis Club, Ames, IA.
- 2005 – “Ada Hayden: champion of the Iowa prairies”. Joint meeting of the American Association of University Women and Federally Employed Women, Ames, IA.
- 2006 – (with Lynn G. Clark) “Pitfalls on the road to productive partnerships: A tale of two herbaria.” Joint annual meeting of the Society for the Preservation of Natural History Collections and the Natural Science Collections Alliance, Albuquerque, NM.
- 2006 – (with Jimmie D. Thompson) “A survey of the flora of Hamilton County, Iowa: a new look at looking”. (Botany Section). Iowa Academy of Science Annual Meeting, Storm Lake, IA.
- 2006 – “An overview of the Ada Hayden Herbarium”, Story City Kiwanis Club, Story City, IA.
- 2007 – “The Ada Hayden Herbarium – a museum of plants and fungi”, Sierra Club, Central Iowa Chapter, Des Moines, IA.
- 2008 – “The ISU Herbarium database”, Iowa Natural History Database Workshop, Iowa Academy of Science Annual Meeting, Cedar Rapids, IA.
- 2008 – (with Jimmie D. Thompson) “A vascular plant survey of Ledges State Park (Boone Co., Iowa)”. (Conservation Section). Iowa Academy of Science Annual Meeting, Cedar Rapids, IA.
- 2008 – “An overview of the Ada Hayden Herbarium”, Golden K Kiwanis Club, Ames, IA.
- 2006 - 2010, 2014-2015 – “A plant's-eye view of the prairie”, Loess Hills Prairie Seminar, Monona, IA.
- 2012, 2014 – “Keys and other devices for identifying plants”, Loess Hills Prairie Seminar, Monona, IA.
- 2013 – “Carnivores and Parasites: Plant Interactions”, NE Elementary School, Ankeny, IA.
- 2013 - 2015 – “A brief introduction to taxonomy”, Association of Official Seed Analysts workshop, Iowa State University, Ames, IA.

Co-author of abstract, not presenter:

- 1999 – (with W.R. Norris, M.P. Widrlechner, J.D. Thompson and R.O. Pope) “The dynamic flora of a Midwestern city: an analysis of floristic change and plant collection patterns in Ames, Iowa since 1859” (Conservation Section). Iowa Academy of Science Annual Meeting.
- 2000 – (with W.R. Norris, M.P. Widrlechner, J.D. Thompson and R.O. Pope) “The dynamic flora of a Midwestern city 3: further analysis of floristic change and plant collection patterns in Ames, Iowa since 1858” (Conservation Section). Iowa Academy of Science Annual Meeting.
- 2007 – (with L.L. Jackson) “Iowa’s system of State Preserves: challenges to conservation of biodiversity” (Conservation Section). Iowa Academy of Science Annual Meeting.

#### **GRANT PROJECTS:**

National Science Foundation, 2015-2018, "Digitization TCN: Collaborative Research: The Microfungi Collections Consortium: A Networked Approach to Digitizing Small Fungi with Large Impacts on the Function and Health of Ecosystems," (ISU's PI on subaward from the University of Illinois, PI Andrew N. Miller)

National Science Foundation, 2011-2015, "Digitization TCN: Collaborative Research: Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-Trophic Associations," (ISU's PI on subaward from Missouri Botanical Garden, PI Robert E. Magill)

National Science Foundation, 2007-2009 (2010), “The Ada Hayden Herbarium: Consolidation, Preservation, and Computerization,” (co-PI, with Lynn G. Clark as PI and Don Farrar and Jim Colbert as co-PIs)

USDA Natural Resources Conservation Service, National Plant Data Center, 2008-2009, "Acquisition of Plant Distribution Data for Iowa." (co-PI, with Lynn G. Clark as PI)