updated: 6 July, 2020

# Curriculum Vitae


## Richard Olmstead

Date of Birth: April 7, 1951


## Present Position:


Professor and Curator
Department of Biology and Burke Museum
Box 355325
University of Washington
Seattle, WA 98195

Ph: 206-543-8850
FAX: 206-685-1728
email: olmstead@uw.edu


## Education:

B. S. 1973. SUNY College of Environmental Science and Forestry, Syracuse, N.Y.
Ph. D. 1988. University of Washington, Seattle, WA. Department of Botany, 9/82-12/87.
Ph. D. dissertation: "Systematics, genetic diversity analysis, and phylogeny of the *Scutellaria angustifolia* complex (Labiatae)." Dissertation Advisor: Melinda Denton
Postdoctoral Fellow. 1988-1990. University of Michigan; Indiana University. "Molecular Systematics of the Asteridae" Postdoc Advisor: Jeffrey Palmer

## Academic Positions:

2003-present. Professor, Department of Biology, University of Washington
1996-present. Curator, Burke Museum of Natural History and Culture, University of Washington
2007-2012. Associate Director for Research, Burke Museum, University of Washington
2004-2005. Senior Fellow, National Museum of Natural History, Smithsonian Institution
2002-2003. Professor, Department of Botany, University of Washington
1997-2002. Associate Professor, Department of Botany, University of Washington
1996-1997. Assistant Professor, Department of Botany, University of Washington
1991-1995. Assistant Professor, Department of E.P.O. Biology, University of Colorado
1989-1990. Research Fellow, Department of Biology, Indiana University.
1988-1989. Research Fellow, Department of Biology, University of Michigan.
1986-87. Research Assistant, Department of Botany, University of Washington.
1985. Instructor, Department of Botany, University of Washington, summer quarter.
1982-86. Teaching Assistant, Department of Botany, University of Washington.

## Honors:

1973. B.S. Magna cum Laude, SUNY College of Environmental Science & Forestry, Syracuse, N.Y.
1984. Sigma Xi
1993. National Science Foundation Young Investigator Award
2000. UW Early Identification Program "Faculty Recognition Award"
2000. Robert McNair Program "Faculty Mentor Certificate of Appreciation"
2001. Keynote speaker at the Office of Minority Affairs, EIP/McNair Spring Research Conference
2002. Institute of Scientific Information (ISI) top 15 Most Highly Cited Researchers in field of "Plant and Animal Science."
2004. Smithsonian Senior Fellowship
2005-2008. President-elect/President/Past President, International Society for Phylogenetic Nomenclature
2009-2011. President-elect/President/Past President, American Society of Plant Taxonomists
2012. Guggenheim Fellow
2012. Distinguished Fellow of the Botanical Society of America (their highest award)

2014-2017. President-elect/President/Past President, Botanical Society of America

## Grants and Awards:

1983. Pollination Research Fund Award, University of Washington
1984. Sigma Xi Grant-In-Aid of Research
1984. Pollination Research Fund Award, University of Washington
1985. Sigma Xi Grant-In-Aid of Research
1985. NSF Doctoral Dissertation Improvement Grant, "Patterns of Evolutionary Divergence in the *Scutellaria angustifolia* complex (Labiatae)." DEB 8501045 ($6,300)
1985. University of Washington, Graduate School Travel Award
1986. Hardman Foundation Academic Research Grant ($1,000)
1988. NSF Research Grant, Molecular Systematics of the Asteridae, with Jeff Palmer. DEB 8717600 ($277,453)
1991. NSF Equipment Grant for Ultracentrifuge and rotors ($22,295).
1991-5. NSF Research Grant: "Molecular Systematics of the Lamiales" BSR-9107827 ($226,370).
1992-3. NSF REU supplement to "Molecular Systematics of the Lamiales" ($10,000).
1993-4. NSF REU supplement to "Molecular Systematics of the Lamiales" ($10,000).
1994-5. NSF REU supplement to "Molecular Systematics of the Lamiales" ($5,000).
1994. NSF ROA supplement to "Molecular Systematics of the Lamiales" ($25,000).
1993-4. Council on Research and Creative Works: "The Use of Nuclear Single-copy Genes in Systematic Biology" ($5,500). Hughes/UROP supplement to CRCW grant ($1,500).
1993-9. NSF Young Investigator Award ($125,000).
1995-6. NSF REU supplement to "NSF young Investigator" ($5,000).
1993-5. NSF Dissertation Improvement Grant for Anna Goebel, "Systematic and Population genetic Analysis of Declining Bufonids: A Molecular Genetic Approach to Their Conservation." ($9,500).
1994. Metropolitan Toronto Zoo (for Anna Goebel): "DNA Analysis of Museum Specimens from Extinct Populations of the Puerto Rican Crested Toad (*Peltophryne lemur*)." ($8,000).
1994-6. NSF Multi-user Biological Equipment and Instrumentation Resources Grant, "Replacement and Modernization of Greenhouse Facilities." DBI-9317890 ($202,500).
1994-9. NSF Joint Program (with USDA and DOE) on Collaborative Research in Plant Biology: "The Origins and Phylogeny of Green Plants: A Research Coordination Group." (18 participants - $285,459).
1995-6. Colorado Div. of Wildlife (for Anna Goebel): "Molecular Genetic Determination of Management Units of the Endangered Boreal Toad (*Bufo boreas*) in the Southern Rocky Mountains" ($15,000).
1996-8. NSF Accomplishment-Based Renewal: "Molecular Systematics of the Lamiales" DEB-9509804 ($130,000).
1996-7. NSF REU supplement to "Molecular Systematics of the Lamiales" ($5,000).
1996-8. NSF Dissertation Improvement Grant for Alan Yen, "Molecular Systematics of Carex (Cyperaceae)." DEB-9623421 ($10,000)
1996-. Private donation from The Seattle Foundation for Research (matched by NSF from NYI Program). ($35,000)
1996-. Private donation from the Washington Research Foundation (matched by NSF from NYI Program). ($35,000).
1996-9. NSF Young Investigator Award ($70,000 matching funds).
1996-8. NSF Academic Research Infrastructure Grant: "Renovation and Repair of Plant Growth Facilities." OIA 9602594 ($300,000).
1997-9. NSF Research Grant: "Molecular Genetics of Pre-mating Reproductive Isolation in *Mimulus*" (with T. Bradshaw and D. Schemske) DEB- 9616522 ($245,000).
1997-8. NSF REU supplement to "Molecular Systematics of the Lamiales" ($10,000).
1998-2001. NSF Research Grant: "Chloroplast DNA Phylogeny of Basal Angiosperms" DEB-9727025 ($190,000).
1998-9. NSF REU supplement to " Chloroplast DNA Phylogeny of Basal Angiosperms " ($5,000).

1999-2000. NSF REU supplement to " Chloroplast DNA Phylogeny of Basal Angiosperms " ($5,000).
2000-2002. NSF Dissertation Improvement Grant: "Molecular systematics and chloroplast genome evolution of Convolvulaceae" DEB-0073396 (for Sasa Stefanovic) ($10,000).
2000-2001. NSF REU supplement to " Chloroplast DNA Phylogeny of Basal Angiosperms " ($5,000).
2001-2004. NSF Research Grant: "Chloroplast DNA Phylogeny of Seed Plants and Basal Angiosperms" DEB-0090313 ($240,000).
2001-2002. RRF Grant: "Evolution of Flower Symmetry" ($25,000).
2001-2003. NSF Dissertation Improvement Grant: "Molecular systematics and evolution in *Mimulus* and tribe Mimuleae" (for Paul Beardsley) DEB-0105048 ($11,028).
2002-2003. NSF REU supplement to "Chloroplast DNA Phylogeny of Basal Angiosperms " ($6,000).
2002-2007. NSF Research Grant: COLLABORATIVE RESEARCH: "The Plant and Algal BAC Library Project: A Fundamental Public Resource for Studying Evolution, Physiology and Development." IBN-0208502 (UW budget: $420,147; D. Mandoli, Project Director, R. Olmstead, C. dePamphilis, R. Wing, J. Banks, Co PI).
2002-2007. NSF Research Grant: "COLLABORATIVE RESEARCH: ATOL: Deep Green Plant Phylogenetics: Novel Analytical Methods for Scaling Data from Genomics to Morphology." DEB-0228660. (UW budget: $642,000; co-PI with D. Mandoli).
2003-2006. NSF Dissertation Improvement Grant: "Evolution of Form and Function: Fruit development of a neotropical lineage of Bignoniaceae." (for Susan Grose) (DEB 0309065 - $12,500).
2003-2004. NSF REU supplement to "Chloroplast DNA Phylogeny of Basal Angiosperms " ($6,000).
2004-2007. NSF Biological Research Collections Grant: "Databasing, Curating, and Protecting: A proposal to update and modernize the University of Washington Herbarium" NSF 0346624 (D. Giblin, Co-PI) ($429,000).
2004-2010. NSF IGERT: "Multinational Collaborations on Challenges to the Environment" (~~G. Klonji~~; T. Hinckley, Project Director, R. Olmstead, Co-PI). NSF DGE-0333408 ($3,367,000).
2004-2006. NSF Dissertation Improvement Grant: "Molecular Systematics and Evolution in *Castilleja* and Subtribe Castillejinae (Orobanchaceae)." (for David Tank) DEB-0412653 ($14,462).
2004-2010. NSF Research Grant: "COLLABORATIVE RESEARCH: ATOL: The Angiosperm Tree of Life: Resolving the Trunk of the Tree and 12 of its Thorniest Nodes." EF-0431184. (UW budget: $262,356).
2004-2005. Smithsonian Senior Fellowship. "Phylogeny and Systematics of Verbenaceae." ($17,000).
2006-2011. NSF Research Grant: "Molecular Systematics of the Verbenaceae." DEB-0542493 ($256,548).
2006-2007. NSF REU supplement to "Databasing, Curating, and Protecting: A proposal to update and modernize the University of Washington Herbarium" ($6,700).
2007-2008. NSF REU supplement to "Databasing, Curating, and Protecting: A proposal to update and modernize the University of Washington Herbarium" ($6,700).
2007-2008. NSF REU supplement to "Molecular Systematics of the Verbenaceae." ($6,000).
2007-2008. NSF supplement to "Databasing, Curating, and Protecting: A proposal to update and modernize the University of Washington Herbarium" ($32,318)
2007-2009. NSF Dissertation Improvement Grant: "Untangling the Evolutionary History of the *Verbena* Complex (Verbenaceae): Hybridization, Introgression, and Polyploidization" (for Yuan Yaowu) DEB-0710026 ($12,000).
2007-2011. NSF ROA supplement to "Molecular Systematics of the Verbenaceae" for sabbatical visit by Dr. Tom Mione to work on *Jaltomata* molecular systematics ($25,225).
2009-2010. NSF Informal Science Education (ISE) "Planning Activity: Using contemporary evolution to teach about the nature of science to underserved audiences." DRL-0840338 (Project Director: Mike Webster, WSU, PIs: Peter Wimberger, UPS, Amy Ryken, UPS, Carol Anelli, WSU) ($75,000).

2010-2014. NSF Biological Research Collections Grant COLLABORATIVE RESEARCH: "Pacific Northwest Herbaria Portal: Developing a Taxonomically Diverse Online Collection" NSF DBI 0956414 (D. Giblin, Lead-PI; J. Ammirati, Co-PI) (UW budget: $642,611). Collaborating institutions: Oregon State, Montana State, U. Idaho (total budget $1,340,878).

2010-2015. NSF Accomplishment-Based Renewal: Molecular systematics of Verbenaceae and resolving their placement in Lamiales. NSF DEB 1020369 ($245,674).

2010-2012. Digitizing Type Specimens from Latin American and Other Areas at the University of Washington Herbarium (D. Giblin, co-PI). Mellon Foundation ($15,700).

2011-2012. NSF Workshop Award: "Support for travel to the 18th International Botanical Congress in Melbourne, Australia." NSF DEB 1120802 (administered through Bot. Soc. Amer.; $40,000).

2011-2012. NSF REU supplement to NSF Accomplishment-Based Renewal: Molecular systematics of Verbenaceae and resolving their placement in Lamiales. ($7,450).

2011-2012. NSF REU supplement to NSF Biological Research Collections Grant COLLABORATIVE RESEARCH: "Pacific Northwest Herbaria Portal: Developing a Taxonomically Diverse Online Collection." ($7,500).

2012-2013. NSF REU supplement to NSF Biological Research Collections Grant COLLABORATIVE RESEARCH: "Pacific Northwest Herbaria Portal: Developing a Taxonomically Diverse Online Collection." ($8,000).

2013-2015. NSF "DISSERTATION RESEARCH: Multi-locus molecular phylogenetics of the genus *Buddleja* and insights into inflorescence evolution and historical biogeography." (for John Chau) NSF DEB 131111 ($20,062).

2014-2019. NSF "OPUS: Lamiales - a synthesis of phylogeny, biology, biogeography, and classification." NSF DEB 1353761 ($151,071).

2015-2018. NSF "DISSERTATION RESEARCH: Effect of niche conservation versus niche evolution on diversification rate in the Neotropical plant genus *Citharexylum* (Verbenaceae)." (for Laura Frost) NSF DEB 1500919 ($20,085).

2015-2018. NSF "DISSERTATION RESEARCH: Biome conservatism in Neotropical plant diversification? A Case study in Bignoniaceae." (for Audrey Ragsac) NSF DEB 1500905 ($20,086).

## Students and Postdoctoral Associates

Undergraduate Student Researchers (*Honors theses)

*Jennifer Sweere (1991-92)
J. Penn Whitley (1991-1992)
*Patrick Reeves (1992-93) Outstanding Graduate, College of Arts & Sciences
*Russell Spangler (1992-94)
Laura Hickerson (1993-94)
Lauren McFarland (1993-94)
Eric Schranz (1994)
*Stephanie Arenales (1995-96)
Jacob Gump (1996)
Slavomir Dzieciatkowski (1996-97)
Lindella Brasche (1996-97)
Lori Krueger (1997)
Kim Rogers (1997-98)
Lydia Tymon (married name L. Putnicki) (1997-98)
Davina Tung (1997-98)
*Analiese Cunnington (1998-99) REU; Mary Gates Scholar
Jermaine Ma (1998-99) EIP Presidential Scholar
Kathleen Wiley (1999-2000) REU
*Vicente Garcia (2000-2001) REU; McNair Scholar; Hughes Fellow
Craig Donovan (2000)

Christina Pince (2001) Hughes Summer Intern; from WWU
Michelle Rogers (2001-2002)
Sarah Collier (2001-2003) REU; Goldwater Fellowship finalist
Liu Chang (2002-2003)
Liu Jin (2002-2003)
Yaowu Yuan (2002-2003)
Jay Perez (2003)
Portia Lingwood (Married: Portia Riedel) (2003-2004) REU
Chelsie Papiez (2003-2004)
Patricia Lu-Irving (2003-2004)
Lan Ting (2003-2004)
Wu Yunke (2004-2005)
Rachel Meyer (2005-2006)
Jessica Ni (2006) Herbarium REU
Hannah Marx (2006-2008) - continued as lab tech through 2010); HHMI; Mary Gates Scholar; May Garrett Hayes Award; BSA Young Botanist
Jennifer Sui (2006)
Keri Cardon (2006-2007) REU
Hanhla Phan (2007-2009)
Julia Gertson (2007-2008)
Bailey Craig (2010-2011)
Michelle Noval (2010-2011) REU
Renee Takara (2011-2012)
Taurus Vilgalys (2011, summer)
Shula Harkavy (2011 – 2012)
Christine Gormley (2011-2014) – Mary Gates Scholar
Ben Meersman (2011- 2014) REU
Ashton Kidd – Environmental Studies Capstone advisor (2012)
Wolfgang Rahfeldt (2012-2014)
Calvin Lee (2013-2015)
Georgia Seyfried (2013-2014)
Sam Frankel (2014-2015)
Sarah Tyson (2015-2017)
Rainier Cramer (2015-2016)
Paige Fabre (2016-2017)
Meng Lu (2016-2018)
Valeria Aizen (2016-2017)
Max Haenel (2017-2018)
Mason Gosney (2018-present)

M. S. Ronny Millen (1992 - 1996): "Many parallel losses of *infA* from chloroplast DNA during angiosperm evolution with multiple independent transfers to the nucleus" (U Minnesota, Cons. Biol/Environ. Law program).

Erin Langner (2006 - 2007). Museology M.S. Program. "Use of podcasting in museums."

Ph. D. Anna Goebel (1991 - 1996): "Systematics and conservation of Bufonids in North America and in the *Bufo boreas* species group" (Florida Gulf Coast University, 2004-present, Associate Professor).

Alan Yen (1994 - 1999): "Molecular systematics of Cyperaceae tribe Cariceae and genus *Carex*" (postdoc w/ D. Baum, Harvard; Lifespan Biosciences; UW Office of Tech Transfer; Children's Hospital, Boston)

Eugenio Santiago (1994 - 1999): "Molecular phylogenetics and historical biogeography of five Greater Antillean plant groups: Goetzeoideae, *Reynosia*, *Wallenia*, *Calyptronoma*, and *Roystonea*" (U. Puerto Rico, 1999-present, Associate Professor).

Hala Abdel Migid (1995 - 1997; Mansoura University, Egypt): "Genetic studies of some wild Solanaceous taxa (tribe Hyoscyameae)" (Mansoura University, Faculty of Science & Taif University, Saudi Arabia).

Sasa Stefanovic (1997 - 2002): "Molecular systematics and chloroplast genome evolution of Convolvulaceae" (postdoc w/ J. Palmer, Indiana University; U Toronto, Massasagua 2004-present, Associate Professor).

Paul Beardsley (1997 - 2002): "Patterns of evolution in Monkeyflowers (*Mimulus*)" (Idaho State U, Assistant Professor, 2003-2006; Biological Sciences Curriculum Study, Colorado Springs, CO, 2007-2011; Assistant Professor, Cal Poly, Pomona, 2011-present).

Susan Grose (1999 – 2006): "Evolution of Form and Function: Fruit development of a neotropical lineage of Bignoniaceae." (married living in France).

David Tank (2000 – 2006): "Molecular Systematics and Evolution in *Castilleja* and Subtribe Castillejinae (Orobanchaceae)" (postdoc w/ Michael Donoghue, 2006-2008; Yale; U. Idaho, 2008-present, Associate Professor)

Yuan Yaowu (2004 – 2008) "Molecular Systematics of *Verbena* (Verbenaceae) complex." (postdoc with Sue Wessler, U. GA 2009-2010; postdoc with Toby Bradshaw, UW, 2011-2013; Associate Professor, U. Conn., 2013-present)

Valerie Soza (2003 – 2010) "Molecular Systematics of *Galium* (Rubiaceae)" (postdoc with Veronica DiStilio, UW, 2010-2011, 2012-2014; Instructor, UW, Dept. Biology, 2011-2012; Research Scientist, Ben Hall lab, 2014-present)

Ryan Miller (2004 – 2014) "Mechanisms of Concerted Evolution in the *rbcS* gene family" (Instructor at Pacific Lutheran University, 2012 – present)

Patricia Lu-Irving (2007 – 2013) "Molecular Systematics of the *Lantana/Lippia* (Verbenaceae) complex." (Instructor, UW, 2013-2014; UW Bothell, 2014-15; Postdoc, University of Arizona, 2015-2017; Technical Officer, Royal Botanic Gardens, Sydney, 2017-present)

John Chau (2010 – 2017) "Systematics of *Buddleja* (Scrophulariaceae): phylogenetic relationships, historical biogeography, and phylogenomics." (postdoc U. Johannesburg, S. Africa, 2017-present)

Laura Frost (2012 – 2018) "Biogeographic Diversification in the tribe Citharexyleae (Verbenaceae)." (postdoc with Laura Lagomarsino, LSU 2018-present)

Audrey Ragsac (2012 – 2019) "Made in the Americas: How three lineages of flowering plants evolved and dispersed across the Neotropics and the World."

Ana Maria Bedoya (2015 – present) "Andean uplift and the transformation of aquatic ecosystems: Impacts on the evolutionary patterns in aquatic plants of northern South America"

Graduate committees of students not my own:

Present: Dave Slager (Klicka), Cooper French (Klicka), Will Brightly (Stromberg), Amber Hageman (VanVolkenburg), Tracy Fuentes (Landscape Architecture), Leonard Jones (Leache), Jasna Hodzic (Jon Bakker; SEFS), Camilla Crifo (Stromberg).

While at Colorado: Christine Gemmill, Sandra Floyd, Kevin Horst, Scott Kelley, Chris Meloche, Kendra Mingo, Dave Shook, Randall Terry (U. Wyoming), Antonio Izzo (U. Northern Colorado)

While at Washington:

Past: Dirk Albach (Soltis; WSU), Amy Carlile (Waaland), Itzue Caviedes-Solis (Leaché), Amy Denton (Hall), Lazar Dimitrov (UW Dentistry, GSR), Meghan (Maurer) Duff (Genome Sciences, GSR), Andrew Eckert (Hall), Lili Fang (Hall; withdrew), Jessica Farmer (Reichard, Evans School/CFR), Tara Fletcher (del Moral), Roger Fuller (del Moral), Denise Glover (Harrell, Anthropology, GSR), Carol Goodwillie (Schemske), Tanya Grancharova (GSR; Genome Sciences), Jared Grummer (Leaché), Hillary Hayden (Waaland), Isabelle Henry (Mandoli, 2000-03), Christopher Himes (Kenagy), Steve Hootman (Hall, withdrew), Heather Hunsperger (Catolico), Joyce LeCompte-Mastenbrook (Harrell, Antropology, GSR), Suzanne Joneson (Ammirati), Kathleen Kay

(Schemske), Ethan Linck (Klicka), Max Maliska (Swalla), Brandon Matheny (Ammirati), Anne Mulleniex (Hall; withdrew), Justin Ramsey (Schemske), Natalie Schmidt (Bakker, SEFS; GSR), Michelle Seidl (Ammirati), Ravi Sawhney (GSR), Yue Shi (Wasser), Daniel Shiner (GSR), Victoria Smith (Museology), Dan Sorensen (Reichard, SEFS), Dou-Shaun Yang (Kenagy).

Postdocs: Steven Wagstaff (1992 - 1994) – Landcare Institute, Christchurch New Zealand (retired)
Judith Becerra (1993 - 1995) – U. Arizona
Bill Hahn (1993- 1995; co-advisor E. Zimmer, Smithsonian Institution) – Columbia U
Alison Colwell (1994 - 1997) – US Nat. Park Service (~2005-2018); Herbarium Curator, UC Davis (2020-present)
Sean Graham (1996 - 1998) – U. British Columbia
Ken Karol (2003 – 2007) – New York Botanical Garden
Nancy Refulio (2007-2010) – Married living in Germany

Visiting Scientists: Birgitta Bremer – Uppsala University (1991)
Robert Scotland – Oxford University (1992, 2000)
Randall Terry – University of Wyoming (1992)
Dorothy Steane – Oxford University (1993)
Lynn Bohs – University of Utah (1993)
Pilar Catalán – University of Zaragoza (1993, 1994)
Steven Lynch – LSU, Shreveport (1994)
Marcia Waterway – McGill Univrersity (1996)
Bengt Oxelman – Uppsala University (1998)
Jonathan Bennett – Oxford University (1999)
Elizabeth Moylan – Oxford University (2000)
Jan Aagaard – University of Oregon (2001-2004)
Thomas Mione – Central Connecticut State University (2007)
Nirzka Martinez – University of Puerto Rico (2011)
Verônica Thode – Universidade Federal do Rio Grande do Sul (2011-2012)

## International fieldwork (grad students participating)

Argentina – 2004, 2007, 2010, 2012, 2016, 2017
Australia – 1994, 1999
Brazil – 2009, 2010 (**Patricia Lu-Irving**), 2014 (**Audrey Ragsac**)
China – 2000, 2002 (Yuan Yao-wu), 2007, 2012 (**John Chau**)
Colombia – 2013 (**Laura Frost**), 2018 (**Ana Bedoya**)
Costa Rica – 2013
Equador – 2018
Mexico – 1977, 1980, 1986
Nicaragua – 2004 (**Susan Grose**)
Peru – 2009 (**Patricia Lu-Irving**)
Puerto Rico, USA – 2003 (**Eugenio Santiago**)
South Africa – 1999

## Professional Societies:

American Society of Plant Taxonomists
Botanical Society of America
International Association for Plant Taxonomy
California Botanical Society
International Society for Phylogenetic Nomenclature
Sigma Xi
Society of Systematic Biologists
Society of Herbarium Curators

Society for the Preservation of Natural History Collections
Natural History Network
American Bryological and Lichenological Society (former member)
Society for the Study of Evolution (former member)
The Systematics Association (former member)
Willi Hennig Society – elected Fellow; presently inactive (former member)

## Museum Exhibits, Outreach, and Service:

Service

Associate Director for Research, Burke Museum, 2007 – 2012
Burke Museum Executive Committee, 2005 – 2012
Burke Museum Expansion Planning (various committees), 2009 – 2012

Exhibits

"Why Study Evolution" – ca. 240 ft$^2$ exhibit featuring curator's research on evolutionary biology (2011)
Contributing to exhibit planning for the biodiversity hall in the new Burke Museum.

## Professional and Public Service:

Service to Professional Societies

Society of Systematic Biologists Nominating Committee, 1993-1994; Ernst Mayr Award Committee, 1997; **Editor in Chief, Systematic Biology 1998-2001**; Council member 1998-2001, 2007-2010; publications committee, 1998-2010; nominee for President 2005, 2007.
ASPT - Publicity Committee 1995-96; Local Representative for 1996 AIBS meetings in Seattle; Nominating committee 2000-2004; Awards Committee 2004-2005; President-elect 2009-10, **President 2010-11**; Past President, 2011-12.
Systematics Agenda 2000 (ASPT, SSB, Willi Hennig Society), member of two planning committees.
Botanical Society of America – Elections committee 2000-2003; Awards Committee 2004-2006; Publications Committee 2006-2009; nominated for President, 2008; **President-elect 2014; President 2015**.
International Society for Phylogenetic Nomenclature, Council Member, 2004 – 2009, 2020-present; Committee on Phylogenetic Nomenclature, 2006-present; President elect, 2005-2006; **President 2006-2007**; Past President 2007-2008.
International Association for Plant Taxonomy, Committee on Affiliated Societies, Chair 2011-2012.

Editorial Responsibilities and Reviewing

PLoS Currents – Phylogenetic Studies, Board of Moderators (2010 - present)
Systematic Biology, Associate Editor, 1995-1997; Editor in Chief, 1998-2001; Book Review Editor, 2001-2002.
Journal of Integrative and Comparative Biology, Editorial Board, 2002 – 2006.
Madroño (publication of California Botanical Society), Editorial Board, 2003 – 2010.
Taxon, Associate Editor, 2005 – 2010.
American Journal of Botany, Associate Editor, 2005 – 2007.
Journal for Natural History Education and Experience, Editorial Board, 2012 – present.
Douglasia (Quarterly journal of the Washington Native Plant Society), special editor for Botanical accuracy (2012 – present).
Darwiniana, Scientific Advisory Board. (2014-present).
Reviewer: Systematic Botany, Evolution, Amer. J. Bot., Aliso, J. Heredity, Ann. Missouri Bot. Gard., PNAS, Science, Nature, BioScience, Pl. Syst. Evol., Plant Science Bulletin, Taxon, Mol. Biol. Evol., Mol. Phylogenet. Evol., SIDA, Amer. Fern J., CABIOS, Brittonia, J. Pl. Res.,

Mol. Ecol., Sinauer Publ. Inc., Plant Biology, Int. J. Pl. Sci., Austral. Syst. Bot., Proc. Royal Soc. Lond. B., Annals Bot., Int. Comp. Biol., Caldasia, Zool. Scripta, JBRIT, Bot. J. Linn. Soc., J. Torrey Bot, Soc., J. Nat. Hist. Ed. & Exp., World Gesneriad Res. Proc., BMC Evol. Biol., Phytotaxa, New Phytol.,PLOS One, Brittonia, etc.

Service to Granting Agencies

NSF Panel member, 1994, 1998, 2003. 2005, 2010, 2017

German Research Council (DFG), Special Program Grant Panel on Biodiversity, 2001- 2006.

Grant Reviewing: NSF, DFG, NSERC, Research Council of Belgium, FRST New Zealand, UW Royalty Research Fund; Australian CSIRO

External review committees

Oregon State University, Dept. of Botany and Plant Pathology, 1999.

North Carolina State University, Dept. of Plant Biology, 2006.

University of British Columbia, Beaty Biodiversity Museum, 2013.

Consulting Activities

Consultant for The Nature Conservancy, Washington Chapter, 1983.

Consultant for Coast Telecourses - participated in development of video lecture on Plant Reproduction.

Washington Park Arboretum, instruct Docent Training class March 25, 2002.

Consultant for faculty job search in Plant Systematics at Pacific Lutheran University, 2008.

Public Outreach

Washington Native Plant Society, Instructor for Native Plant Steward program, 1997-present

Testify before Seattle City Council on behalf of the Arboretum Master Plan, 2001.

Kruckeberg Botanical Garden Foundation, Board of Directors, 2004 – 2013; President 2007-2008; Garden Committee 2008-present (Chair, 2008-2013).

Video interviews for iPlant Collaborative (2008)

Audio interviews for Natural Histories Project (http://naturalhistoriesproject.org/conversations/willful-disregard-for-science; http://naturalhistoriesproject.org/conversations/an-open-door)

Interviewed and videotaped for outreach video entitled "Fields of Thought" produced by the Chicago Field Museum, 2013 (http://www.fieldmuseum.org/multimedia/video-fields-thought)

Botanical Society of America, Planting Science Mentor (2014-2016)

Lake Forest Park Tree Board (2018-present).

Other

The Future of Herbaria in the US: "Vision" Committee 2004 – 2006.

Organizing Committee member; Awards Committee Chair, Sixth International Solanaceae Conference, Madison, WI, July 2006.

## UW Committees and other duties:

1996-2003. Department of Botany Herbarium Curator
1996-2003. Botany Greenhouse Committee
1996 – 98, 2000-02. Botany Admission and Awards Committee (Chair, 2000)
1999 – present. Museology Program Affiliated Faculty Member
1999 – 2000. Botany Strategic Planning Committee
1999. Botany Seminar Coordinator
1996, 1997, 1998, 2000. Botany Faculty Search Committees
1996 and occasional following years. Royalty Research Fund, grant reviewer
2000. UW WorldWide delegation to Sichuan University
2000 – 2010. **UW Worldwide Coordinating Committee**
2000 – 2001. **College of Arts & Sciences Curriculum Committee**
2001 – 2003. Botany/Zoology Transition Committee
2001 – 2003. Biology Curriculum Committee
2002. Supervisor and field trip coordinator, UW WorldWide student trip to Sichuan, China
2003 – 2004. Biology Graduate Committee

2003 – 2004. Biology Space and Fiscal Policy Committee
2003 – 2004; 2008 – 2010. Faculty Senate
2005 – 2008. Biology Department Seminar Committee Chair
2005 – 2009. UW Delegate to Organization for Tropical Studies, Assembly of Delegates
2005, 2008, 2012. 2015 Reviewer of Goldwater Scholarship applications
2007 – 2010. UW Botanic Gardens, Directors Guild
2007 – present. **UW Botanic Gardens, Advisory Committee**
2008 – 2009. University Landscape Advisory Committee
2010 – 2015. **Office of Global Affairs (OGA) Advisory Council**
2011. **Speech & Hearing Sciences Chair Search Committee, Chair of Committee**
2012 – 2017. **UW Delegate to Organization for Tropical Studies, Assembly of Delegates**
2014 – 2015. **Department of Biology Faculty Appointments Committee, Chair**
2016 – present. UW Botanic Garden Arboretum Curation committee
2016 – 2018. UW Botanic Garden Director Search Committee
2017 – present. Biology Department Diversity and Equity Committee
2020. UW College of A&S/UW Retirement Association, Retirement Seminar, Winter quarter 2020.

## Invited Seminars:

1986 Department of Urban Horticulture, University of Washington.
1987 Department of Biological Sciences, U.C. Santa Barbara
1988 Department of Biology, Montana State University.
Department of Botany, Ohio University.
Department of Biology, University of Michigan.
Department of Biology, University of New Mexico.
1989 Department of Evolutionary & Organismal Biology, Harvard University.
1990 Department of Botany, University of Toronto.
Department of E.P.O. Biology, University of Colorado.
Department of Botany, Duke University.
Department of Botany, University of California, Davis.
Department of Botany, Ohio State University.
Department of Biology, University of Utah.
1991 INSTAAR, University of Colorado
Department of Botany, University of Wyoming
Department of Botany, Ohio University
1992 Department of Systematic Botany, Uppsala University, Uppsala, Sweden
Swedish Museum of Natural History, Stockholm, Sweden
Rancho Santa Ana Botanic Gardens, Claremont, CA.
1993 University of Northern Colorado, Greeley, CO
Department of Botany, University of Washington
1994 Department of Biology, Vanderbilt University
1995 Department of Biology, University of Michigan
Department of Botany and Microbiology, University of Oklahoma
Department of Botany, University of Washington
1996 Department of Botany, Washington State University
Washington Native Plant Society, Seattle
1997 Department of Biology, San Diego State University
Department of Botany, Stockholm University
Department of Botany, Mansoura University, Egypt
Department of Botany, University of Texas
1998 Department of Botany, University of Kansas
2000 Department of Integrative Biology, University of California, Berkeley
Department of Organismal and Evolutionary Biology, Harvard University

Institute of Botany, Beijing, China
Department of Biology, University of Utah

2001 Davidson Lecturer; Department of Botany, University of British Columbia
Kruckeberg Botanic Garden Foundation, Shoreline, WA
Washington Native Plant Society, Seattle

2002 Institute of Botany, Beijing, China
Burke Museum, University of Washington, Seattle

2003 University of Washington, Annual Alumni Lecture Series. "The Natural History of the Lewis and Clark Expedition."

2004 Washington Native Plant Society. "The Natural History of the Lewis and Clark Expedition."
US Herbarium, NMNH Smithsonian Institution. Washington D.C.
Department of Botany, Ohio University
Instituto Darwinion Botanico, Buenos Aires, Argentina
Universidad Nacional de Cuyo, Mendoza, Argentina

2005 Department of Biology, George Washington University. Washington D.C.
US Botanical Garden Public Lecture Series, Washington D.C.
US Herbarium, NMNH Smithsonian Institution. Washington D.C.
Washington Botanical Society. Washington D.C.

2006 Department of Biology, University of Washington.
Department of Botany, University of Florida

2007 IADIZA, CONICET, Mendoza, Argentina
Department of Biology, Portland State University.
Department of Biology, University of Victoria.
Burke Museum, presentation to staff on Argentina field research

2008 Department of Plant Biology, Cornell University
Burke Museum Association, presentation on Genetic Resources as Museum Collections
Department of Biology, Pacific Lutheran University.

2009 Washington Native Plant Society, Central Puget Sound Chapter
Museo de Historia Natural, Universidad Nacional de San Marcos, Lima, Peru.
Washington Native Plant Society, Native Plant Appreciate Week speaker, Columbia Basin Chapter
Presentation to Biology staff on Staff Appreciation Day
3-Day short course (ca. 12 hrs lecture) "Molecular Systematics and the Phylogeny of Lamiales and Solanales" at Universidade Estadual de Feira de Santana, Bahia, Brazil (13-15 July, 2009).

2010 University of Sao Paulo, Brazil
University of Rio Grande do Sul, Brazil
ASPT Presidential Address at Botany 2010, Providence, RI.

2012 Stockholm University, Sweden, March, 2012

2013 Chicago Field Museum, A. Watson Armour III Invited seminar, October, 2013.
University of Idaho iBest Seminar Series, November, 2014

2014 Instituto Darwinion, Buenos Aires, Argentina, March, 2014
Washington State University, November, 2014

2015 Botany 2015 Presidential address: "The International Botanist"
[https://www.youtube.com/watch?v=hrlA43io0CQ]

2016 WNPS Study Weekend, Keynote address.

2017 4-Day short course on Botanical Nomenclature (co-taught with Rocio Deanna and Sandy Knapp) in association with the Joint Congress of the Sociedad Argentina de Botanica and the Sociedad de Botanica de Chile, Mendoza, September, 2017.

## **Invited Symposium Papers presented and Invited Workshops attended** (* presented by, if other than RGO)**:**

1985 Self-incompatibility in light of population structure and inbreeding. Symposium on "Biotechnology and Ecology of Pollen." Amherst, MA 1985.

1988 Chloroplast DNA and systematics of the Solanaceae. Third International Solanaceae Congress, Bogota, Colombia, 1988.

1989 Chloroplast DNA and phylogenetic studies in the Asteridae. Fourth International Symposium of Plant Biosystematists, Kyoto, Japan, 1989.

1990 Phylogeny of the Solanaceae And Solanales based on chloroplast DNA. Symposium on "Asteridae Phylogeny." AIBS, Richmond 1990.

An *rbc*L sequence phylogeny of the Asteridae. Symposium on "Asteridae Phylogeny." AIBS, Richmond 1990.

1991 A chloroplast DNA phylogeny for the Asteridae: implications for the Lamiales. Conference on Advances in Labiate Science, Royal Botanic Gardens, Kew, England 1991.

Chloroplast DNA sequence data and Angiosperm phylogeny. American Genetic Association Symposium, Tucson 1991.

1992 The evolution of self-incompatibility systems in the flowering plants (with S. Weller, D. Charlesworth, and M. Donoghue). IOPB, St. Louis, 1992.

Breeding system evolution as a by-product of selection on vegetative characters in *Scutellaria*. AIBS, Honolulu 1992.

1993 Comparing and combining *ndh*F and *rbc*L sequences for phylogenetic inference. AIBS, Ames 1993.

Species coalescence: How do plesiomorphic species achieve monophyly? AIBS, Ames 1993.

1994 Higher plant mlecular systematics: Progress and pitfalls. Can. Bot. Assoc. Calgary 1994.

Overview of molecular techniques and phylogenetic analyses of molecular data (*T. Ranker). AIBS, Knoxville 1994.

A phylogeny of the Solanaceae based on chloroplast DNA. IV International Solanaceae Congress, Adelaide, Australia 1994.

Problems in phylogenetic analysis of molecular data. Workshop on Molecular and Classical Taxonomy, European Science Foundation, France 1994.

1995 Green Plant Phylogeny Workshop. Berkeley, CA 1995.

Molecular Phylogeny of Angiosperms. Symposium: "DNA, Systematics and Evolution", G (oops, this entry accidentally truncated)

Translating Phylogenetic Analyses into Classifications (Convener and speaker) AIBS, 1995.

Phylogeny and classification in the Solanaceae. Symposium: Translating Phylogenetic Analyses into Classifications. AIBS 1995.

Phylogenetic classification of Labiatae and Verbenaceae: coping with poor resolution (with P. Cantino & S. Wagstaff). AIBS 1995.

Molecular Phylogeny of Angiosperms. Symposium: "DNA, Systematics and Evolution", Geneva, Switzerland, September, 1995.

1996 Mardi Gras Symposium in Systematics and Evolutionary Biology: “Analysis of large data sets: An end-user’s perspective”. February 1996.

Workshop on Universal Characters for Phylogeny Reconstruction in Green Plants. Seattle, August 1996.

1997 British Systematics Association, Glasgow, Scotland: “Is there a specific gene for a specific problem?” August 1997

British Systematics Association, Oxford, England: “Optimizing taxon and character sampling for large molecular phylogenetic studies.” August 1997

1998 SSB/SSE Symposium: Character Evaluation and Phylogenetic Analysis, “Should Molecular Characters be Evaluated Individually or as Classes?” Vancouver, 1998

DIMACS Symposium on Estimating Large Scale Phylogenies, “Chloroplast DNA phylogeny of the basal angiosperms.” Princeton, 1998 (with *Sean Graham)

Workshop on Phylogenetic Nomenclature, Harvard University, Cambridge, 1998.

1999 Symposium on Systematic and Large Genera, First Annual Conference of the South African Society for Systematic Biology: "Molecular Systematics of Large Plant Genera with examples from Solanum and Carex", Cape Town, South Africa, January 1999.

Symposium on Phylogeny and Systematics of the Lamiales: "The molecular phylogeny of the Lamiales s.l." XVI International Botanical Congress, St. Louis, August 1999.

Symposium on Current Perspectives on Basal Angiosperms: Molecular and developmental aspects: "A phylogeny of basal angiosperms inferred from 17 chloroplast genes." XVI International Botanical Congress, St. Louis, August 1999 (presented by Sean Graham).

2000 Jepson Herbarium 50th Anniversary Symposium: "Phylogeny: another dimension in Biodiversity assessment" Berkeley, June 2000.

2001 Symposium on Plant Biogeography of the Caribbean. Biogeography of the Goetzeoideae (Solanaceae). [with E. Santiago] ASPT/BSA 2001.

2002 Symposium on "The Convention on Biological Diversity" at Smithsonian Institution. Co-organized (with G. Bharathan) a workshop on the impact on International Biodiversity research by academic scientists. April, 2002.

Molecular systematics and chloroplast genome evolution of Araucariaceae and relatives. International Dendrology Society Symposium on Araucariaceae, Auckland, New Zealand. (* Sean Graham). 2002

Symposium on "Tree of Life;" "The Phylogeny of Eudicots (Angiosperms) or ca. 13% of Everything" ICSEB, Patras, Greece, September, 2002.

2003 Monocot phylogeny and evolution: inferences from a large plastid data set. Monocots III: Third international symposium on the comparative biology of the monocotyledons and fourth international symposium on grass systematics and evolution, Ontario, California. (*Sean Graham). 2003.

2004 International Organization of Plant Biosystematists (IOPB), 17-19 May, 2004, Valencia, Spain. Keynote lecture: "Systematics, phylogeny, and global distributions of Mediterranean plant families: Examples from the Asteridae."

Botany 2004 (BSA/ASPT Annual meetings), August, 2004: Panelist in discussion of "The Role of Morphology in Phylogeny Reconstruction."

2005 International Botanical Congress, July, 2005. Vienna, Austria. "Phylogeny of the Lamiales, with special reference to family Plantaginaceae, sensu APG."

2006 VI International Conference on Solanaceae, Madison, WI, July, 2006. Phylogeny of Solanaceae and the history of its study.

2007 Contributed 2 half-day presentations in Fulbright Foundation supported course in Molecular Markers in Plant Biotechnology at Universidad de Cuyo, Mendoza, Argentina. February, 2007.

2008 Virtual herbaria: Regional progress in organizing, fundraising, and delivering content. "Consortium of Pacific Northwest Herbaria" [with Ben Legler* and David Giblin] Botany 2008, Vancouver, B.C.

2009 Congreso Nacional de Botanica, Feira de Santana, Bahia, Brazil, 28 June – 3 July, 2009. "Phylogeny of Labiatae and Verbenaceae."

Congreso Nacional de Botanica, Feira de Santana, Bahia, Brazil, 28 June – 3 July, 2009. "Floral Homoplasy in Labiatae." (*with Phil Cantino)

2010 VI Southern Connections Congress, Bariloche, Argentina, 15-18, February, 2010. "Phylogeny and biogeography in Solanaceae, Verbenaceae, and Bignoniaceae: A central role for southern South America as a source of diversity."

2011 International Botanical Congress, Melbourne, Australia, July 2011. "Phylogeny and biogeography in Solanaceae, Bignoniaceae, and Verbenaceae: A comparison of continental and intercontinental diversification patterns."

International Botanical Congress, Melbourne, Australia, July 2011. "Using new genes and techniques to untangle the evolution of problematic taxa: An example from Lantaneae (Verbenaceae)" (P. Lu-Irving, presenting author).

Brazilian Genetics Congress, Sao Paulo, Brazil, 30 August – 2 September, 2011. "Verbenaceae: Phylogeny, Evolution, and Biogeography."

2012 International Workshop on Genus *Buddleja*, August, 2012. "Lamiales: mother of *Buddleja*."
International Workshop on Genus *Buddleja*, August, 2012. "Molecular phylogeny, biogeography, and floral evolution in the genus *Buddleja* (Scrophulariaceae)." (John Chau, presenting author).

2016 Southern Connections VIII, Punta Arenas, Chile, January, 2016. "Southern hemisphere plant dispersal paths: examples from Lamiales" [with P. Lu-Irving & J. Chau]
Botany 2016 Colloquium: Patterns and Processes of American Amphitropical Plant Disjunctions: New Insights, Savannah, GA. "Patterns of interior continental disjunctions: examples from Lamiales, and an exploration of possible mechanisms." [with P. Lu-Iriving, L. Frost, & D. Slager]

2017 Botany 2017, Ft. Worth, TX, June, 2017. "The life and legacy of Art Kruckeberg" invited speaker in symposium "Geology and plant life: the growing legacy of Arthur Kruckeberg"
Botany 2017, Ft. Worth, TX, June, 2017. "Vascular Plant Extinction in North America north of Mexico; what have we lost and what can we learn?" [with W. Knapp* and 19 coauthors] Botany 2017, Ft. Worth, TX.
International Botanical Congress, Shenzen, China, July, 2017.
Co-Organizer (with Wang Yin-Zheng) and speaker in Symposium: "Lamiales: phylogenetic insight into the patterns and mechanisms of phenotypic diversity" Title: "Phylogeny and Systematics of Lamiales: historical perspective and present concept"
Invited speaker in symposium: "Phylogeny and evolution of the Lamiids" Title: "Dispersal routes in the southern hemisphere and Neotropics: examples from Lamiales"
Joint Congress of the Sociedad Argentina de Botanica and the Sociedad de Botanica de Chile, Mendoza, September, 2017.
Symposium on Latin American Solanaceae; Title: "Phylogeny and Classification of Solanaceae."
Graduate short course on Botanical Nomenclature; co-taught with Rocio Deanna and Sandra Knapp

2019 2019 Washington Botanical Symposium, Seattle, WA, March, 2019. Title: "Molecular systematics: a panacea?"

2020 International Solanaceae seminar series (online), July 10, 2020. Title: "Molecular phylogeny and classification of Solanaceae: A historical perspective" [https://www.youtube.com/watch?v=FBhtuuKK_ZA]

## Symposium Invitations (future):

## Exhibits, Online presentations (by or featured in), etc.:

2010 How to preserve algae in herbarium collections. Burke Mueum Youtube Channel [https://www.youtube.com/watch?v=KXOr7WLwzW0]

2011 "Willful Disregard for Science" and "An Open Door" audio recordings as part of The Natural Histories Project" (www.http://naturalhistoriesproject.org)

2012 Why Study Evolution? Burke Museum exhibit featuring research by natural history curators around the theme of how understanding phylogeny sheds light on modern biodiversity. [http://www.burkemuseum.org/exhibits/why-study-evolution]
Verbenaceae: a case study in plant evolution. Burke Museum Youtube Channel [https://www.youtube.com/watch?v=Ilxfj7tDXkk]

2013 What sparked the earth's richest plant diversity? Burke Museum Blog [http://www.burkemuseum.org/blog/what-sparked-earths-richest-plant-diversity]

2014 "Fields of Thought" video on Natural History Museum collections produced by The Field Museum (https://www.fieldmuseum.org/science/blog/video-fields-thought)

2015 "The International Botanist" Botanical Society of America Presidential Address. (https://www.youtube.com/watch?v=hrlA43io0CQ)

2016 "The WTU Foray: 20 years of building collections, resources, and a botanical community around a university herbarium. Video of contributed paper at BOTANY 2016. [https://www.youtube.com/watch?v=zynI6qXktQI]
Herbarium Foray Program: 20 years of collections and community. Burke Museum Blog [http://www.burkemuseum.org/blog/herbarium-foray-program-20-years-collections-and-community]

2017 52 million-year-old tomatillo fossils rewrite veggie history. Interviewed for NPR's Food For Thought blog. [http://www.npr.org/sections/thesalt/2017/01/10/509171881/52-million-year-old-tomatillo-fossil-rewrites-veggie-history]

2017 "Origin of the Butterfly-bush." Burke Museum Blog [https://www.burkemuseum.org/news/origin-butterfly-bush]

2017 "Herbarium Foray program: 20 years of collections and community." Burke Museum Blog [https://www.burkemuseum.org/news/herbarium-foray-program-20-years-collections-and-community]

2018 "Helpful resources for identifying wildflowers." Burke Museum Blog [https://www.burkemuseum.org/news/helpful-resources-identifying-wildflowers]

2019 "Two coincidental discoveries lead to new species of flowering tree." Burke Museum Blog [https://www.burkemuseum.org/news/two-coincidental-discoveries-lead-new-species-flowering-tree]

## **Contributed Papers and published abstracts** (* presented by, if other than RGO)**:**

The evolution of self-incompatibility in flowering plants. Population and Evolutionary Biologists of the Pacific Northwest, 1984.

Inbreeding and self-incompatibility in flowering plants. AIBS, 1984.

A test for parallelism in floral characters by allozyme analysis in the *Scutellaria angustifolia* complex. AIBS, 1986.

The extent and distribution of genetic diversity within and among ten species of skullcap (Scutellaria) native to western North America. Evolution Society, 1987.

Genetic diveristy statistics in a phylogenetic context: the *Scutellaria angustifolia* complex. AIBS, 1987.

Assessment of breeding systems and phylogenetic relationships in *Sedum* sect. *Gormania* (Crassulaceae) [with M. Denton*]. AIBS, 1987.

A synthesis of molecular and morphological approaches to phylogenetic reconstruction in *Scutellaria*. AIBS, 1988.

Use of the phylogenetic method for interpreting phenotypic evolution and biogeography in Scutellaria. AIBS, 1988.

Chromosome evolution in subtribe Oncidiinae (Orchidaceae): an evaluation of polyploidy, with evidence from variation in restriction sites in chloroplast DNA and isozyme number [with M. Chase* and J. Palmer]. AIBS, 1988.

The evolution of correlated characters in Scutellaria (Labiatae). AIBS, 1989.

A reassessment of the relationships within *Nicotiana* and between *Nicotiana* and *Petunia* (Solanaceae) based on molecular evidence. AIBS, 1989.

Phylogenetic relations among *Jaltomata*, *Hebecladus* and related genera (Solanaceae) [with T. Mione*, J. Palmer, R. Jansen, and G. Anderson]. AIBS, 1990.

Systematics and evolution of *Jaltomata* (Solanaceae) [with T. Mione*, G. Anderson, and R. Jansen]. AIBS, 1991.

Character weighting for phylogenetic analyses of restriction site data [with R. Jansen* and K. Holsinger]. AIBS, 1991.

A revised concept of the subclass Asteridae based on *rbc*L sequences. AIBS, 1992.
Molecular phylogeny of the Solanaceae: taxonomic and evolutionary implications. AIBS 1992.
Phylogeny and *rbc*L sequence evolution in the Lamiales [with S. Wagstaff*]. AIBS 1992.
Phylogeny and biogeography of subfamily Nepetoideae (Labiatae) [with S. Wagstaff* and P. Cantino]. AIBS 1992.
Polyphyly of the Scrophulariaceae and origin of the aquatic Callitrichaceae inferred from chloroplast DNA sequences [with P. Reeves*]. AIBS 1993
Implications of *rbc*L sequence data for higher order relationships of the Loasaceae [with A. Hempel*, P. Reeves, and R. Jansen]. AIBS 1993
Phylogeny of Labiatae and Verbenaceae: comparison of morphological and molecular cladistic analyses [with P. Cantino* and S. Wagstaff]. AIBS 1993
Phylogenetic relationships in the Labiatae and Verbenaceae inferred from *ndh*F and *rbc*L sequences [with S. Wagstaff*]. AIBS 1993
Co-evolution of Rubisco large and small subunits: evidence from the evolution of small subunit genes (*rbc*S) in Solanaceae. AIBS 1994
Multiple origins of sympetaly in dicots. [with K.-J. Kim* and R. J. Jansen] AIBS 1994
Determination of generic limits in subfamily Tillandsioideae (Bromeliaceae) based on phylogenetic analysis of *ndh*F sequences. [with R.G. Terry* and G. K. Brown] AIBS 1994
Phylogenetic assessment of subfamilial relationships in Bromeliaceae: evidence from comparative sequencing of the plastid locus *ndh*F. [with R.G. Terry* and G. K. Brown] AIBS 1994
Overview of molecular techniques and phylogenetic analyses of molecular data. [with T. Ranker*] AIBS 1994
Evolutionary implications of cpDNA in *Nicotiana* and *Solanum*. IV International Solanaceae Congress, Adelaide, Australia 1994.
A phylogeny of the Solanaceae based on chloroplast DNA data. IV International Solanaceae Congress, Adelaide, Australia 1994.
A reanalysis of the large *rbcL* dataset. [with K. Rice and M. Donoghue*] AIBS 1995.
Total evidence vs. consensus with molecular data sets: Is there just one answer? SSB/SSE 1995 and AIBS 1995.
Molecular systematic studies in the Asteridae s.l. (poster). 5th Symposium of Botany, Cuban Botanical Society, Havana, Cuba.
Molecular systematics of the endemic Antillean group Goetzeoideae (Solanaceae). [with Eugenio Santiago*] ). 5th Symposium of Botany, Cuban Botanical Society, Havana, Cuba.
Molecular systematics of *Carex* (Cyperaceae): preliminary results and comparisons among three coding and non-coding chloroplast DNA regions. [with Alan Yen*] AIBS 1996.
Studies in Goetzeaceae/Goetzeoideae (Solanaceae): about the ecology and systematic relationships of an Antillean-endemic plant group. [with Eugenio Santiago*] AIBS 1996.
Molecular systematics of tribe Hyoscyameae. [with Hala Abdel Migid*] AIBS 1996
Phylogeny of *Nicotiana*: Chloroplast RFLP analysis and flower evolution. [with Alison Colwell*, Anthony Ippolito, and Timothy Holtsford] AIBS 1996.
The Phylogenetic Position of *Trichostema* (Labiatae). [with P. Cantino* and S. Wagstaff] Pennsylvania Natural History Conference 1997.
Testing Assumptions About Sequence Evolution: Implications for Parsimony Analysis. [with P. Reeves & A. Yen] SSE/SSB 1997.
Molecular evolution and systematic implications of two non-coding chloroplast DNA regions in Cyperaceae tribe Cariceae. [with A. Yen*] SSE/SSB 1997.
Molecular Systematics and Biogeography of Antillean Plant Groups. [with E. Santiago*] SSE/SSB 1997.
Between Scylla and Caryopteris: struggling with the Linnaean strait jacket. [with P. Cantino* & S. Wagstaff] SSE/SSB 1997.
Molecular evidence suggests that *Carex* section *Limosae* is not monophyletic. [with M. Waterway* & E. McIntire] AIBS 1997.

Molecular systematics of Cyperaceae tribe Cariceae: Preliminary results based on DNA sequences from three chloroplast DNA regions. [with A. Yen*] AIBS 1997

Phylogenetic Relationships of the Bignoniaceae based on cpDNA Gene Sequences of *rbc*L and *ndh*F. [with R. Spangler*] AIBS 1997.

A systematic reappraisal of *Clerodendrum* L. s.l. (Lamiaceae) based on molecular data. [with D. Steane*] Systematics Association, Oxford 1997.

New tools from the chloroplast genome for inferring the phylogeny of the basal angiosperms. [with S. Graham*] Ecological Genetics Group meeting, St. Andrews, Scotland, and SSE/SSB Vancouver. 1998.

Disintegration of the Scrophulariaceae: from the ashes ... [with C. dePamphilis, A. Wolfe, N. Young, & P. Reeves] AIBS 1998.

Small steps, Bignons: Historical Phytogeography of the Malagasy Bignoniaceae. [with M. Zjhra* & K. Sytsma] AIBS 1998.

Phylogenetic Analysis of the Asteridae s.l. Based on Sequences of Four Genes ..[with D. Albach*, P. Soltis, & D. Soltis] AIBS 1998.

Phylogenetic relationships in *Carex* section *Hymenochlaenae* inferred from non-coding nuclear and chloroplast DNA sequence data. [with M. Waterway*] AIBS 1998.

Monophyly of the Convolvulaceae and circumscription of their major lineages based on cpDNA sequences. [with S. Stefanovic* & L. Krueger] (poster) IBC 1999

The phylogenetic analysis of the genus *Mimulus* (Scrophulariaceae). [with P. Beardsley*] (poster) IBC 1999.

The molecular systematics of the Australian endemic plants in the Chloanthoideae and Prostantheroideae (Lamiaceae). [with P. Cantino, B. Lepschi, and P. Reeves] Dampier 300 Conference (Society of Australian Systematic Biologists), 1999.

Problems in seed plant phylogeny estimation. Deep Green Workshop on "Analytical Challenges for Deep Phylogeny in Plants" College Park, MD, June 2000

Tracing the origin of the Macaronesian endemic genus *Bystropogon* (Lamiaceae). [with J. Trusty*, D. Bogler, A. Santos-Guerra, and J. Francisco-Ortega] Botany 2000.

Phylogenetic Analysis of Crescentieae and *Tabebuia* s.l. (Bignoniaceae). [with S.O Grose*] Botany 2000.

Inference of seed plant phylogeny from multiple chloroplast genes. [with S. Graham*, H. Raj, P. Reeves and H. O'brien] Botany 2000.

Molecular systematics of Convolvulaceae inferred from cpDNA sequences. [with S. Stefanovic*] Botany 2000.

A molecular systematic study of the Prostantheroideae (Lamiaceae), including Chloantheae (formerly Verbenaceae). [with P. Cantino, B. Lepschi, and P. Reeves] Botany 2000.

A phylogenetic analysis of the genus *Mimulus* and tribe Mimulueae (Lamiales). [with P. Beardsley*] Botany 2000.

A molecular phylogeny of the Boraginaceae/Hydrophyllaceae. [with D. Ferguson] Botany 2001

Molecular systematics of Convolvulaceae inferred from multiple chloroplast loci. [with S. Stefanovic*] Botany 2001

Molecular phylogeny of North American *Asclepias* (Asclepiadaceae). {with S. Lynch*, L. Watson, P. Meyer, and B. Farrell] Botany 2001

Phylogenetic relationships of the Australian tribe Anthocercideae (Solanaceae) based on chloroplast DNA sequences. [with V. Garcia*] Botany 2001

Patterns of speciation and the evolution of hummingbird and self-pollination in the *Erythranthe* clade of *Mimulus* (Phrymaceae) as inferred from an AFLP phylogeny. [with P. Beardsley* and A. Yen] Botany 2001

Radiation of *Mimulus* (Phrymaceae) in western North America: evolution of polyploidy, woodiness, and pollination syndromes. [with P. Beardsley* and S. Schoenig] Botany 2001

Phylogenetic analysis of Crescentieae and *Tabebuia* s.l. (Bignoniaceae). [with S. Grose*] (poster) Botany 2001

Phylogeny of the cycads and their placement in the seed plants, as inferred from a large chloroplast data set. [with H. Rai*, H. O'Brien, and S. Graham] Botany 2001

Grose, S. O. and R. G. Olmstead. Phylogenetic analysis of Crescentieae and *Tabebuia* s.l. (Bignoniaceae). Conference poster and abstract in: Funk V. A., C. L. Kelloff, and T. Hollowell. Proceedings of the Biological Diversity of Guyana: A global perspective for the future. Publisher, Georgetown, Guyana. October, 2001

Conifer monophyly and higher-order relationships based on a large, multigene plastid data set. [with H. Rai,* P. Reeves, and S. Graham] Botany 2002

Addressing deep and difficult problems in plant molecular systematics using large-scale sequencing of the chloroplast genome. [with S. Graham,* H. Rai, P. Reeves, and McPherson] Botany 2002

Molecular phylogeny, evolution, and classification of the Bignoniaceae. [with M. Zjhra, S. Grose, A. Eckert, and R. Spangler] Botany 2002

Patterns of evolution in Bignoniaceae: The Tabebuia/Crescentieae conundrum. [with S. Grose*] Botany 2002

Narrowing down the phylogenetic position of the parasitic genus *Cuscuta* (Convolvulaceae): evidence from all three plant genomes and implications for chloroplast genome evolution. [with S. Stefanovic*] Botany 2002

Phylogenetic analysis of subtribe Castillejinae (tribe Rhinantheae: Orobanchaceae). [with David Tank*] Botany 2002.

Patterns of evolution in Neotropical Bignoniaceae: relationships within Crescentieae. [with Susan Grose*] Botany 2003.

Molecular phylogenies from nuclear and chloroplast genes support the connection of the Macaronesian genus *Bystropogon* (Lamiaceae) to the radiation of the New World Mentheae. [with J. Trusty*, D. Bogler, A. Santos-Guerra, and J. Francisco-Ortega]. Botany 2003.

A preliminary phylogeny of Verbenaceae using three hierarchical levels of molecular data. SSB/SSE 2004.

Systematics of subtribe Castillejinae (Orobanchaceae): the role of morphology in taxon delimitation. [ with D. C. Tank*]. SSB/SSE 2004

Evolution or a duplicated floral regulatory pathway in Lamiales. [with J. Aagaard,* P. Phillips, & J. Willis]. SSB/SSE 2004

Phylogenetic nomenclature of Lamiaceae. [with P. D. Cantino*] Int. Soc. Phylogenetic Nomenclature, Paris, July, 2004.

Phylogenetic nomenclature of Lamiales. [with P. D. Cantino] Int. Soc. Phylogenetic Nomenclature, Paris, July, 2004.

Phylogenetic fallout: A preliminary phylogenetic assessment of what's left of the Verbenaceae. [with C. Donovan & P. Lingwood] Botany 2004.

The role of morphology in placing unsampled taxa in molecular phylogenies: A case study using Bignoniaceae. [with S. O. Grose*] Botany 2004.

The complete chloroplast genome sequence of the lycopod, *Huperzia lucidula* (Lycopodiaceae): implications for land plant phylogeny. [with P. Wolf,* J. Kuehl, B. Mishler, D. Mandoli, K. Arumuganathan, K. Renzaglia, A. Manne, M. Ellis, K. Karol, & J. Boore] Botany 2004.

Phylogeny of the Lamiales, with special reference to family Plantaginaceae, sensu APG. [with Bengt. Oxelman] International Botanical Congress XVII, Vienna, Austria, July, 2005.

Phylogeny and plastid genome evolution in the parasitic genus *Cuscuta* (Convolvulaceae). [with S. Stefanovic*] International Botanical Congress XVII, Vienna, Austria, July, 2005.

Evolution of mammal dispersed fruits: Morphology and anatomy of fruits in Crescentieae (Bignoniaceae). [with S. O. Grose*] International Botanical Congress XVII, Vienna, Austria, July, 2005.

Phylogeny and Evolution in Lamiaceae [with P. D. Cantino* and Y. Yuan] International Botanical Congress XVII, Vienna, Austria, July, 2005.

Geographic disjuntcion or morphological convergence? The evolutionary origin of a second radiation of annual *Castilleja* species in South America (subtribe Castillejinae: Orobanchaceae). [with D. C. Tank*] Botany 2005, Austin, TX.

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http://My-Plant.org: Social networking for the plant science community. [with M. Gonzales, M. Hanlon, T. Madsen, L. Majure, R. McCourt, N. Merchant, B. Mishler, S. Mock, P. Nuthulapati, R. Olmstead, A. Payton, P. Soltis, D. Soltis, S. Tremblay, & M. Wojciechowski] PAG 2011, San Diego, CA.

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Effect of niche conservation versus niche evolution on diversification in the Neotropical plant genus Citharexylum (Verbenaceae) [with L. A. Frost*] Botany 2015, Edmonton, Alberta.

Fruit evolution and diversification rate in *Lantana* and *Lippia* (Verbenaceae). [with P. Lu-Irving,* F. Salimena, T. Silva, C. Bittencourt, & L. Viccini] Botany 2015, Edmonton, Alberta.

Out of the tropics: connections between tropical and temperate Verbenaceae. [with P. Lu-Irving, L. Frost]. Network for Neotropical Biogeography 5, January, 2016, Santiago, Chile.

The WTU Foray: 20 years of building collections, resources, and a botanical community around a university herbarium. [with D. Giblin & B. Legler] Botany 2016, Savannah, GA.

Phylogeny and biogeography of Citharexylum (Verbenaceae) [with L. Frost*] Botany 2016, Savannah, GA.

An update on the Bignoniaceae phylogeny: progress on Jacarandeae, Crescentieae, and Tecomeae. [with A. Ragsac*, R. Cramer, & L. Lohmann] Botany 2016, Savannah, GA.

Divergence time estimation in Lamiidae. [with D. Tank*] Botany 2016, Savannah, GA.

Bayesian estimation of the global biogeographic history of the Solanaceae. [with J. Dupin*, N. Matzke, T. Sarkinen, S. Knapp, R. Olmstead, L. Bohs, & S. Smith] Botany 2016, Savannah, GA.

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Reconstructing the evolution of the aquatic habit in Neotropical *Ludwigia* (Onagraceae). What could this group tell us about the impact of Andean uplift in the evolution of aquatic plants in Northern South America? [with A. Bedoya* and S. Madriñán] Botany 2017, Ft. Worth, TX.

A phylogeny of Tecomeae (Bignoniaceae): Bringing new insights to New World plant diversity. [with P. Fabre* and A. Ragsac] Botany 2017, Ft. Worth, TX.

A phylogenetic study of the *Scutellaria* (Lamiaceae) based on chloroplast *ccsA*, *matK*, and *ndhF* regions. [with Y. Lee,* A. Paton, and S. Kim] Botany 2018, Rochester, MN.

Phylogeny of Verbenaceae. [with M. Haenel* and L. Frost] Botany 2018, Rochester, MN.

Comparison of taxon-specific versus general locus sets for targeted sequence capture in plant phylogenomics. [with J. Chau*] Botany 2018, Rochester, MN.

Is it faster to move or evolve? Comparing effects of niche conservatism and niche evolution on diversification rate in *Citharexylum* (Verbenaceae). [with L. Frost*] Botany 2018, Rochester, MN.

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Andean connections for amphitropic desert disjuncts in Verbenaceae : Yes, no, or maybe? [with N. O'Leary, L. Frost, & P. Lu-Irving] Latin American Botanical Congress, Quito, Ecuador. 2018

Investigating the evolution of aquatic plants in northern South America: population genetics, habitat and a sequenced genome. [with A. Bedoya*] Latin American Botanical Congress, Quito, Ecuador. 2018

An update on the Bignoniaceae phylogeny: progress on Jacarandeae, Crescentieae, and Tecomeae [with A. Ragsac* and L. Lohmann] Latin American Botanical Congress, Quito, Ecuador. 2018

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Is it faster to move or evolve? Comparing effects of niche conservatism and niche evolution on diversification rate in the Neotropical plant genus *Citharexylum* (Verbenaceae). [with L. A. Frost* & N. O'Leary] Latin American Botanical Congress, Quito, Ecuador. 2018

Phylogenetic relationships of the tribe Neospartoneae (Verbenaceae) based on molecular data. [with Meng Lu*, L. Frost, and N. O'Leary] Systematics 2019, Bristol, UK.

Around the world in 30 million years: Phylogeny and biogeography of Tecomeae (Bignoniaceae). [with A. Ragsac*, P. Fabre, & T. Sarkinen] Botany 2019, Tucson, AZ.

A super-matrix approach to the Bignoniaceae phylogeny. [with M. J. Gosney* & A. Ragsac] Botany 2019, Tucson, AZ.

Structural organization of chloroplast genomes of five species of riverweeds (Podostemaceae) and comparative analysis in Malpighiales. [with A. M. Bedoya*, B. Ruhfel, T. Philbrick, S. Madrinan, & C. Bove] Botany 2019, Tucson, AZ.

Phylogenetics and species delimitation in riverweeds (Podostemaceae): Evolutionary processes across and within rivers. [with A. M. Bedoya*] Botany 2019, Tucson, AZ.

Comparing effects of niche conservatism and niche evolution in Citharexyum (Verbenaceae). [with L. A. Frost*] Botany 2019, Tucson, AZ.

Andean uplift, drainage basin formation, and the evolution of riverweeds (Podostemaceae). [with A. M. Bedoya*] Botany 2020 (virtual).

## Publications (Social media):

2013. What sparked Earth's richest plant diversity? Burke Museum Blog

2017. Origin of the butterfly-bush . Burke Museum Blog
Herbarium Foray Program: 20 years of collections and community Burke Museum Blog

2018. Helpful resources for identyfing wildflowers. Burke Museum Blog

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*****DiMichele, W., T. Phillips, and **R. G. Olmstead**. 1987. Opportunistic evolution: abiotic environmental stress and the fossil record of plants. Rev. Palaeobot. Palynol. 50:151-178.

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***Olmstead, R. G**. 1989. Phylogeny, Phenotypic evolution, and biogeography of the *Scutellaria angustifolia* complex: inferences from morphological and molecular data. Syst. Bot. 14:320-338.

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