Curriculum vitae
Thomas J. Givnish

Education

1969-1973	Princeton University, Department of Mathematics: A. B. *summa cum laude*
1973-1976	Princeton University, Department of Biology: M. A., Ph. D.

Professional experience

1976	Instructor of Biology, Harvard University
1976-1981	Assistant Professor of Biology, Harvard University
1981-1984	Associate Professor of Biology, Harvard University
1984-1985	Lecturer on Biology, Harvard University
1985-1986	Assistant Professor of Botany, University of Wisconsin-Madison
1986-1990	Associate Professor of Botany, University of Wisconsin-Madison
1990-present	Professor of Botany, University of Wisconsin-Madison
1992-present	Professor of Environmental Studies, University of Wisconsin-Madison
1999-2003	Visiting Professor of Botany, University of Hawaii
2003-present	Henry Allan Gleason Professor of Botany, University of Wisconsin-Madison
2004-2005	Visiting Fellow, Research School of Biological Sciences, Australian National University
2009-present	Member, J. F. Crow Institute for the Study of Evolution, UW-Madison
2009-present	Member, Center of Rapid Evolution, UW-Madison
2016-2018	Adjunct Professor of Biology, University of Sydney

Courses taught

HARVARD	Population biology: evolution; Patterns in the structure and diversity of plant communities; Speciation and adaptation; Plant population biology; Tropical ecology; Topics in population and community ecology
YALE SCHOOL OF FORESTRY & ENV. AFFAIRS	Tropical forest ecology
ORGANIZATION FOR TROPICAL STUDIES	Fundamentals of ecology field course (resource person)
UNIVERSITY OF WISCONSIN	General ecology (Botany/Forestry/Zoology 460); Advanced topics in plant ecology (Botany 950); Vegetation of Wisconsin (Botany 455); Advanced plant community ecology (Botany 801); Introduction to ecology research at UW-Madison (Botany/FWE/Zoology 953); Geology, ecology, human evolution & ethnobotany in the Pacific (UW Extension) **Co-taught** Plants and man (Botany 240), Population genetics (Botany 575), Australian plant ecology (Botany 575 – 2018), Desert ecology and evolutionary biology (Botany 575 – 2017), Tropical field biology capstone course (Botany/Zoology 639/640: 1995/6 – Venezuela; 1998/9 – Hawaii), Plant physiological ecology (Botany 802)

Awards and Distinctions

1973-1976	NSF Graduate Fellow
1973-1976	Danforth Graduate Fellow
1998- present	Fellow, Linnean Society of London
1999-2001	Vilas Research Associate, University of Wisconsin ($60,000)

2003-present	Fellow, American Association for the Advancement of Science
2006	Distinguished Ecologist Lecture series, Colorado State University
2015	Warren Wagner Memorial Lecture, University of Michigan
2017	E. O. Wilson Biodiversity Lecture, University of Oldenburg
2019	John Davidson Lecture, University of British Columbia

Citations

20,015 (6307 since 2016)
h-index = 69 (43 since 2016) Data from Google Scholar, 6/20/21
i-10 index = 125 (99 since 2016)

Research Grants

Total grants at UW-Madison as PI or coPI: $12.3M ($15.1M in constant 2017 dollars)
Continuous NSF funding: 1988-2022 = 34 years thus far

1971-1972	NSF grant GY-9110. Ecology of Atlantic white cedar (*Chamaecyparis thyoides*) and related species in the Pine Barrens of New Jersey
1976-1978	Milton Fund Grants: studies of leaf form, temporal community structure in forest herbs, serotiny in *Pinus rigida*
1978-1982	Clark Fund Grants: allometry and adaptive patterns of leaf shape in forest herbs; carnivory in *Brocchinia* (Bromeliaceae)
1981-1982	Atkins Garden Grant: transition between shrubby and arboreal growth forms along rainfall and edaphic gradients in sw Australia and New Caledonia
1981-1983	Milton Fund Grant: mechanical constraints on evolution of plant form
1983-1984	Grants from the Maria Moors Cabot Foundation, E. I. Dupont de Nemours, Pfeizer-Dekalb, Monsanto Corporation, and Cambridge University Press to support an international symposium on Evolutionary Constraints on Primary Productivity: Adaptive Strategies of Energy Capture in Plants ($11,000)
1984-1986	National Geographic Society Grant: Adaptive radiation and evolution of carnivory in the bromeliad genus *Brocchinia* of the Guayana Highlands ($19,600)
1986-1987	Wisconsin Alumni Research Foundation Grant: Ecological causes of depth zonation in aquatic plants ($12,407)
1986-1987	Nave Fund, University of Wisconsin [with K. J. Sytsma]: Molecular evolution in the plant family Rapateaceae endemic to the Guayana Shield ($4,780)
1987-1988	Wisconsin Alumni Research Foundation Grant: Causes of depth zonation in emergent and floating-leaved macrophytes ($11,599)
1988-1991	National Science Foundation Grant BSR-8806520 (PI, with K. J. Sytsma as co-PI): Molecular evolution and adaptive radiation in the bromeliad genus *Brocchinia* ($93,689) (including a $4,000 REU grant)
1988-1990	National Geographic Society 133-N680 (PI, with K. J. Sytsma as co-PI): Molecular evolution, adaptive radiation, and speciation in the fleshy-fruited Hawaiian lobelioids ($20,674)
1990-1992	National Science Foundation BSR-9007293 (PI, with K. J. Sytsma as co-PI): Molecular evolution in *Brocchinia,* the Pitcairnioideae, and allied monocots ($142,200) (including a $10,800 supplement)
1990-1992	National Science Foundation (co-PI, with P. Reich (PI) and J. Volin (co-PI)): Effects of elevated levels of carbon dioxide and ozone on plant growth and photosynthesis ($80,000)
1991	Nave Fund, University of Wisconsin: Molecular evolution in the Pitcairnioideae ($4,000)
1991-1992	Hilldale Committee (PI): The role of competition in determining depth zonation in aquatic plants ($4,000 award to support undergraduate research)

1991-1994	National Science Foundation (PI): Causes of depth zonation in emergent and floating aquatic plants ($165,000) DEB-9107379
1992-1993	National Science Foundation (PI): Trends in the stature, allocation to support tissue, and diversity of submersed aquatic plants along a natural fertility gradient ($6,500 Research Experience for Undergraduates Award)
1992-1993	National Science Foundation (PI, with K, J. Sytsma as co-PI): Molecular evolution and adaptive radiation in the monocot family Rapateaceae, endemic to the Guayana Shield ($5,000 Research Experience for Undergraduates Award)
1992-1993	Hilldale Committee (PI): Energetic costs of simple vs. compound leaves ($4,000 award to support undergraduate research)
1992-1993	Hilldale Committee (PI): Competition between the waterlilies *Brasenia schreberi* and *Nymphaea odorata* ($4,000 to support undergraduate research)
1992-1993	Hilldale Committee (co-PI, with PI K. J. Sytsma) Phylogenetic reconstruction using cpDNA sequencing from the *rbc*L-*atp*β spacer region ($4,000 to support undergraduate research)
1992-1995	Friends of the University of Wisconsin Arboretum (PI): Experimental reconstruction of oak savannas ($55,000)
1993-1996	Department of Defense - U. S. Fish and Wildlife Service (PI): Ecology of the endangered Karner Blue Butterfly ($150,000)
1993-1994	Hilldale Committee (PI): Molecular evolution and adaptive radiation in Pacific Coast lilies ($4,000 to support undergraduate research)
1993-1994	Hilldale Committee (PI): Dominance by shrubs vs. herbs in relation to light availability along a forested gradient in southern Wisconsin ($4,000 to support undergraduate research)
1993-1995	National Science Foundation (PI, with K. J. Sytsma as co-PI): Molecular evolution in the Rapateaceae and allied monocot families ($120,000)
1994-1997	U. S. Forest Service (PI): Trends in the composition, structure, and diversity of forest understories along climatic and edaphic gradients in the Upper Great Lakes ($85,000)
1995-1997	American Orchid Society (PI, J. Hapeman as co-PI): Molecular evolution and adaptive radiation in the rein orchids (*Platanthera:* Orchidaceae) ($10,800)
1995-1998	National Science Foundation (PI, with K. J. Sytsma as co-PI): Molecular evolution, adaptive radiation, and geographic speciation in the Hawaiian lobelioids ($180,000)
1995-1997	National Science Foundation (PI, with T. Patterson as co-PI): Molecular evolution and adaptive radiation in *Calochortus* (Liliaceae) ($10,000)
1998-2000	National Science Foundation (PI, with A. Mast as co-PI): Molecular evolution and adaptive radiation in *Banksia* (Proteaceae) ($10,000)
1998-1999	Hilldale Committee (PI): Evolution of leaf anatomy in relation to shade tolerance in the Hawaiian lobeliads ($4,000 to support undergraduate research)
1998-1999	Hilldale Committee (PI): Molecular systematics of *Clermontia* (Campanulaceae) ($4,000 to support undergraduate research)
1998-1999	Wisconsin Alumni Research Foundation (PI): Quantification of light regimes and photosynthetic rates in the Hawaiian lobeliads ($26,000)
1999-2003	National Science Foundation (PI, with G. Goldstein as co-PI): Ecology and evolution of photosynthetic light responses in the Hawaiian lobeliads ($430,000)
2000-2006	National Science Foundation (co-PI, with P. Berry as PI and K. Sytsma as co-PI): Molecular evolution and biogeography of endemic elements of the Guayana Highlands flora ($260,000)
2001-2005	Andrew W. Mellon Foundation (PI): Leaf phenology and hydraulic conductance as determinants of shade tolerance in southern Appalachian trees. ($370,000 direct costs)
2001-2003	National Park Service (co-PI, with J. Volin as PI): Development of a simulation model relating hydrology, topography and edaphic factors to landscape variation in plant community structure in the Florida Everglades ($295,796)

2001-2002	National Science Foundation (PI, with F. Landis as co-PI): The effects of light and arbuscular mycorrhizae on oak savanna plant community composition ($5,224)
2002-2003	University of Wisconsin, retention package - $100,000 flexible funds
2002-2012	University of Wisconsin, gift funds - $20,000/yr
2002-2007	National Park Service (T. Givnish and J. Volin [Florida Atlantic University] PIs, Paul Glaser [University of Minnesota] co-PI): Landscape model of ridge and slough topography: integration of hydrology and biological processes ($800,000)
2003-2005	National Science Foundation (PI, with J. D. Coop as co-PI): Environmental determinants of subalpine forest-grassland ecotones in the southern Rockies ($9,626)
2004-2005	Wisconsin Alumni Research Foundation (PI): Phylogeography, geographic cohesion, speciation, and the scale of genetic differentiation in *Calochortus* (Liliaceae) ($31,410)
2005-2008	National Science Foundation (PI): Phylogeography and spatial scales of genetic differentiation and incipient mating barriers in *Calochortus* ($449,938)
2008-2013	National Science Foundation (Lead PI): From *Acorus* to *Zingiber:* Assembling the phylogeny of the monocotyledons ($2,895,000 total; $500,005 UW budget)
2010	National Science Foundation (PI): REU Supplement – Amplification and next-generation sequencing of whole plastid genomes ($7,500)
2010-2016	National Science Foundation (coPI, with PI Don Waller, coPI Ken Cameron, and coPI Ken Sytsma): Dimensions: roles of functional, phylogenetic, and genetic diversity in structuring and sustaining plant communities through environmental change ($2,934,940)
2011-2013	National Science Foundation (PI, with coPI Emily Sessa): Dissertation research: investigating phylogeny, reticulate evolution, and gene tree discordance in New World *Dryopteris* (Dryopteridaceae) ($14,864)
2011-2013	National Science Foundation (PI, with coPI Stephanie Lyon): Dissertation research: molecular systematics, evolution, and historical biogeography of *Corybas* (Orchidaceae) ($14,950)
2015-2016	Wisconsin Alumni Research Foundation: Pilot study on the use of highly informative nuclear loci to reconstruct evolution in the Hawaiian lobelioids ($39,619)
2016-2021	National Science Foundation: Integrated adaptations to moisture supply and cross-over in whole-plant growth among *Eucalyptus* species along an Australian rainfall gradient (PI, with coPIs Kate McCulloh, Mark Adams, and Tom Buckley) ($979,319)
2017-2018	National Science Foundation: Dissertation research: phylogeny, reticulate evolution, and historical biogeography in the Hawaiian lobeliad genera *Cyanea* and *Clermontia* (PI, with coPI S. Hunter) ($19,870)
2018-2019	North American Lily Society Research Foundation (PI): Global lily phylogenomics ($8,000)
2018-2019	American Iris Society Foundation (PI, with coPI Evan Eifler): Drivers of species diversification and floral mimicry in *Geissorhiza* (Iridaceae): phylogeny, biogeography, and vulnerability in the Cape Floristic Region ($21,990)
2019-2022	National Science Foundation (PI, with coPIs Chelsea Specht and Susan Strickler): Phylogeny, historical biogeography, and floral eco-evo-devo in *Calochortus* (Liliaceae) ($1.55M, $611K UW budget)
2021	Wisconsin Alumni Research Foundation: Phylogenomics of *Calochortus* (Liliaceae) ($28.5K)

Participation in invited international symposia

1975	Symposium on Theoretical Plant Morphology XIIth International Botanical Congress, Leningrad
1976	Cabot Symposium on Tropical Trees as Living Systems Harvard Forest, Petersham MA
1977	Symposium on Plant Population Biology Ithaca College, New York
1981	Symposium on the Evolutionary Biology of Plants XIIIth International Botanical Congress, Sydney

1982 Symposium on Recent Advances in Plant Community Ecology
Ecological Society of America, State College PA

1983 Symposium on Physiological Ecology of Plants in the Wet Tropics
Universidad Autonoma Nacional, Mexico City

1983 Cabot Symposium on Evolutionary Constraints on Primary Productivity
(Convener) Harvard Forest, Petersham, MA

1986 Symposium on Comparative Plant Ecology
University of Sheffield, Sheffield, Great Britain

1987 Robertson Symposium on Ecology of Photosynthesis in Sun and Shade
Australian National University, Canberra

1987 Symposium on Adaptive Aspects of Vegetation Structure (Co-convener)
Utrecht, Netherlands

1987 Symposium on Species Diversity Patterns in Vegetation
Utrecht, Netherlands

1988 Symposium on Predictive Theory and Empirical Testing
Davis, California

1990 Symposium on The Use of Phylogeny in Understanding the Evolution
of Tropical Plant-Animal Interactions
Richmond, Virginia

1991 Symposium on Hawaiian Evolution
Hilo, Hawaii

1992 Symposium on Evolution of the Hawaiian biota
Honolulu, Hawaii

1993 Symposium on the Ecology of Aquatic Plants
XVth International Botanical Congress, Tokyo

1994 Symposium on the Ecology of Plant Stems
Newport, Oregon

1994 Symposium on the Ecology of Lupine
Bodega Bay Biological Station, California

1995 Symposium on Molecular Evolution and Adaptive Radiation
(joint convener, with K. J. Sytsma)
Montreal, Canada

1997 Plant Evolution on Islands (Willi Hennig Society)
Washington, D. C.

1998 International Workshop on Plant Plasticity
Tel Aviv, Israel

1998 2nd International Symposium on Monocotyledons
Sydney, Australia

1998 Symposium on Adaptive Radiation and Molecular Systematics
Kyoto, Japan

1998 Symposium in Conjunction with the International Prize in Biology
Hayama, Japan

1999 Plant Evolution on Islands: Classical Patterns, Molecular Data, New Insights
(Convener, with co-convener U.-R. Böhle)
XVI International Botanical Congress, St. Louis

2000 Optimality in Plant Ecology: Prospects and Challenges
Hyttäla Field Station, University of Helsinki

2001 Evolution of Plant Physiology
Kew Botanical Gardens, Surrey

2001 Adaptive Radiation
National Center for Ecological Analysis and Synthesis, Santa Barbara

2001 Deep Morphology: Toward a Renaissance in the Use of Morphology in Systematics
Institute of Botany, University of Vienna

2001 Molecular and Morphological Data in Modern Systematics
University of São Paolo

2002 Hawaiian Biogeography
Stanford University

2002 Tropical Biogeography (co-convener, with Susanne Renner)
Botanical Society of America / American Society of Plant Taxonomists

2002 Plant species-level systematics: patterns, processes and new applications
Nationaal Herbarium Nederlands, Leiden

2002 Molecular genetics and ecology of plant adaptation
University of British Columbia Botanical Gardens, Vancouver

2003 Monocots III
Rancho Santa Ana Botanic Gardens

2003 Science and Restoration of the Greater Everglades and Florida Bay Ecosystem
Palm Harbor, Florida

2003 Plant Speciation (New Phytologist Trust)
Canadian Association of Botany, St. Francis Xavier University

2003 Why Are There So Many Different Kinds of Tropical Plants?
Association for Tropical Biology and Conservation, University of Aberdeen

2004 Origin, adaptive radiation, and geographic diversification of the bromeliads
Bromeliad Society International, Chicago

2005 Evolution of the Bromeliaceae
XVII International Botanical Congress, Vienna

2005 Maximum tree height and hydraulic integration
University of New South Wales, Sydney

2007 Tree islands of the Central Everglades
Florida Atlantic University, Boca Raton

2008 Monocots IV – Phylogeny of Poales *and* Phylogeny of Bromeliaceae
Natural History Museum of Denmark, Copenhagen

2009 Angiosperm Phylogeny and Biotic Evolution
56th Annual Fall Symposium, Missouri Botanical Garden

2011 Monocot Phylogeny and Evolution (organizer)
XVIII International Botanical Congress, Melbourne

2011 Bromeliad Evolution (co-organizer)
XVIII International Botanical Congress, Melbourne

2013 Orchid Relationships, from Species to Subfamily
Monocots V, NY Botanical Garden

2013 Phylogenetics of Bromeliaceae
Monocots V, NY Botanical Garden

2014 Plant evolutionary radiations: where, when, why and how?
University of Zürich, Switzerland

2015 Plant hydraulics workshop
NSF, Washington, D.C.

2016 Identifying interdisciplinary opportunities for a new era of plant vascular biology
Gordon Research Conference on Multiscale plant vascular biology, Sunday River, ME

2017 Orchid phylogenomics: diversification, evolution and biogeography (co-convener, with Katharina Schulte, James Cook University
XIX International Botanical Congress, Shenzhen, China

2017 Ecology, evolution, and physiology of carnivorous plants
XIX International Botanical Congress, Shenzhen, China

2017 Building and exploring the green plant tree of life
XIX International Botanical Congress, Shenzhen, China

2018 Plasticity in plant vascular systems (discussion leader and presenter on Microevolution)
Gordon Research Conference on Multiscale plant vascular biology, Mt. Snow, VT

2018 Ecology, physiology, and evolution of carnivorous plants (co-convenor with Tanya Renner and Robert Naczi)
Botanical Society of America, Rochester, Minnesota

2018 Monocot phylogenomics I (organizer and lead presenter)
Monocots VI, Natal, Brazil

2018 Monocot phylogenomics II (co-organizer with Oscar Escobar, Wolf Eisenhardt, and William Baker)
Monocots VI, Natal, Brazil

2020 From genes to distributions: physiological ecology as an integrator of polyploid biology
(co-organizer, with Christopher Krieg and Steven Augustine)
Botanical Society of America, virtual meeting online

Invited seminars (1980-2019) – Australian National University 2004, 2005, 2012; Boston University 1980; Cambridge University 1982, 1998; Coe College 2009; Colorado State University 2006abc; CSIRO Canberra 2008; Duke University 2003; Florida Atlantic University 2001, 2007; Florida International University 2015; Harvard University 1983, 2014; Imperial College 2014; Indiana University 1985; Iowa State University 1988, 2012; James Cook University 2019; Kyoto University 2012; Liverpool University 1982; Miami University of Ohio 1997; Michigan State University 1997, 2005; National Park Service, Miami 2007; National Tropical Botanical Garden 1999, 2005; Northern Illinois University 2009; Ohio State University 2015; Ohio University 2001; Oxford University 1982, 1998, 2014; Pepperdine University 2015; Princeton University 1982, 1985; Rancho Santa Ana Botanic Gardens 2017; Royal Botanical Gardens, Kew, 1998; Royal Botanical Gardens, Sydney 2005; Rutgers University 1985; Sheffield University 1982; Stanford University 1982; Universidad de los Andes 1982, 1995; University of British Columbia 2019a,b; University of California at Berkeley 1982; University of California at Davis 1986; University of California at Santa Barbara 2008; University of Canterbury 2005; University of Cape Town 2004; University College of North Wales 1982; University of Connecticut at Storrs 1980, 2007; University of Florida 2002, 2019ab, 2021; University of Georgia 1983; University of Göttingen 2019; University of Hawaii 1997; University of Konstanz 2017; University of Melbourne 2019; University of Michigan 2015; University of Minnesota 1985, 2008; University of Missouri-St. Louis 1997, 2017; University of Oldenburg 2017; University of Oslo 2003; University of New Hampshire 1989; University of New South Wales, 2005; University of North Carolina 1988; University of Rochester 1983; University of Texas 2016; University of Toronto 1980; University of Uppsala 1998; University of Utah 1997; University of Washington 1982; University of Wisconsin-Madison 1985, 1986, 1988, 1992, 2004, 2005, 2006abc, 2010. 2014, 2018ab, 2019; University of Wisconsin-Stevens Point 1997; University of Wisconsin-Whitewater 2008; University of Zürich 2001, 2017; Vanderbilt University 1991; Washington University 1982, 1997; Wellesley College 1980; Yale University 1982.

PUBLICATIONS (156 reviewed articles, book chapters, and books; 3 manuscripts submitted)

Givnish, T. J., and G. J. Vermeij. 1976. Sizes and shapes of liane leaves. American Naturalist 110: 743-778.

Givnish, T. J. 1978. On the adaptive significance of compound leaves, with particular reference to tropical trees. Pp. 351-380 *in* P. B. Tomlinson and M. H. Zimmermann (eds.), Tropical trees as living systems. Cambridge University Press, Cambridge.

Givnish, T. J. 1978. Ecological aspects of plant morphology: leaf form in relation to environment. Acta Biotheoretica 27: 83-142.

Givnish, T. J. 1979. On the adaptive significance of leaf form. Pp. 375-407 *in* O. T. Solbrig, S. Jain, G. B. Johnson, and P. H. Raven (eds.), Topics in plant population biology. Columbia University Press, New York.

Givnish, T. J. 1980. Ecological constraints on the evolution of breeding systems in seed plants: dioecy and dispersal in gymnosperms. Evolution 34: 959-972.

Givnish, T. J. 1980. Evolution of form and function [a review of T. H. Frazetta, Complex adaptations in evolving populations]. BioScience 30: 839.

Givnish, T. J. 1981. Serotiny, geography, and fire in the Pine Barrens of New Jersey. Evolution 35: 101-123.

Givnish, T. J. 1982. Outcrossing vs. ecological constraints in the evolution of dioecy. American Naturalist 119: 849-865.

Aronson, R. B., and T. J. Givnish. 1982. Optimal central place foraging: a comparison with null hypotheses. Ecology 64:395-399.

Givnish, T. J. 1982. On the adaptive significance of leaf height in forest herbs. American Naturalist 120: 353-381.

Givnish, T. J. 1982. Quantitative plant geography [a review of E. O. Box's Macroclimate and plant form: an introduction to predictive modeling in phytogeography]. BioScience 33: 392-393.

Givnish, T. J. 1983. Convergent evolution of crown form in woody plants of southwestern Australia and New Caledonia. American Philosophical Society Yearbook 1983: 136.

Givnish, T. J. 1984. Leaf and canopy adaptations in tropical forests. Pp. 51-84 *in* E. Medina, H. A. Mooney, and C. Vásquez-Yánes (eds.), Physiological ecology of plants of the wet tropics. Dr. Junk, The Hague.

Givnish, T. J., E. L. Burkhardt, R. E. Happel, and J. W. Weintraub. 1984. Carnivory in the bromeliad *Brocchinia reducta*, with a cost/benefit model for the general restriction of carnivorous plants to sunny, moist, nutrient-poor habitats. American Naturalist 124: 479-497.

Benzing, D. H., T. J. Givnish, and D. L. Bermudez. 1985. Absorptive trichomes in *Brocchinia reducta* (Bromeliaceae) and their evolutionary significance. Systematic Botany 10: 81-91.

Givnish, T. J. 1986. Biomechanical constraints on self-thinning in plant populations. Journal of Theoretical Biology 119: 139-146.

Givnish, T. J. (ed.). 1986. **On the Economy of Plant Form and Function.** Cambridge University Press, Cambridge.

Givnish, T. J. 1986. On the use of optimality arguments. Pp. 3-9 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J. 1986. Economics of gas exchange. Pp. 11-24 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J. 1986. Optimal stomatal conductance, allocation of energy between leaves and roots, and the marginal cost of transpiration. Pp. 171-213 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J. 1986. Economics of support. Pp. 413-420 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J. 1986. Biomechanical constraints on canopy geometry in forest herbs. Pp. 525-583 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J. 1986. Economics of biotic interactions. Pp. 667-680 *in* T. J. Givnish (ed.), On the economy of plant form and function. Cambridge University Press, Cambridge.

Givnish, T. J., R. W. McDiarmid, and W. R. Buck. 1986. Fire adaptation in *Neblinaria celiae* (Theaceae), a high-elevation rosette shrub endemic to a wet equatorial tepui. Oecologia 70: 481-485.

Givnish, T. J. 1987. Comparative studies of leaf form: assessing the relative roles of selective pressures and phylogenetic constraints. New Phytologist 106(Suppl.): 131-160.

Givnish, T. J. 1987. Comparative studies of leaf form: assessing the relative roles of selective pressures and phylogenetic constraints. Pp. 131-160 *in* I. H. Rorison, J. P. Grime, R. Hunt, G. A. F. Hendry, and D. H. Lewis (eds.), Frontiers of Comparative Plant Ecology. Academic Press, London. [Reprint of preceding paper]

Givnish, T. J. 1988. Adaptation to sun vs. shade: a whole-plant perspective. Australian Journal of Plant Physiology 15: 63-92.

Givnish, T. J. 1988. Adaptation to sun vs. shade: a whole-plant perspective. Pp. 63-92 *in* C. B. Osmond, D. B. Hall, and S. von Caemmerer (eds.), Ecology of Photosynthesis in Sun and Shade. CSIRO Press, Canberra. [Reprint of preceding paper]

Ashton, P. S., Givnish, and S. Appanah. 1988. Staggered flowering in the Dipterocarpaceae: new insights into floral induction in the aseasonal tropics. American Naturalist 132: 44-66.

Givnish, T. J., E. S. Menges, and D. F. Schweitzer. 1988. Minimum-area requirements for long-term conservation of the Albany Pine Bush and the Karner Blue Butterfly. 120 pp. Published report to Malcolm Pirnie, Inc. and the City of Albany, NY.

Givnish, T. J. 1989. The roots of modern approaches to macroevolution. Ecology 70: 1552-1553.

Givnish, T. J. 1989. Ecology and evolution of carnivorous plants. Pp. 243-290 *in* W. G. Abrahamson (ed.), Plant-animal interactions. McGraw-Hill, New York.

Givnish, T. J. 1990. Leaf mottling: relation to growth form and leaf phenology, and possible role as camouflage. Functional Ecology 6: 463-474.

Givnish, T. J. 1991. Leafy canopies [a review of Plant Canopies: Their Growth, Form and Function, edited by G. Russell, B. Marshall, and P. G. Jarvis, Cambridge University Press]. BioScience 41:178-179.

Givnish, T. J. 1992. Nature green in leaf and tendril. Science 256: 1339-1341.

Givnish, T. J. 1993. From plant to planet. Science 261: 115-117.

Sytsma, K. J., T. J. Givnish, J. F. Smith, and W. J. Hahn. 1993. Obtaining and storing land plant samples for macromolecular comparisons. In E. A. Zimmer, T. J. White, R. L. Cann, and A. C. Wilson (eds.), Molecular Evolution: Producing the Biochemical Data. Methods in Enzymology 224: 23-37.

Givnish, T. J., K. J. Sytsma, J. F. Smith, and W. S. Hahn. 1994. Thorn-like prickles and heterophylly in *Cyanea:* adaptations to extinct avian browsers on Hawaii? Proceedings of the National Academy of Sciences, U. S. A. 91: 2810-2814.

Lammers, T. G., T. J. Givnish, and K. J. Sytsma. 1994. Merger of the endemic Hawaiian genera *Cyanea* and *Rollandia* (Campanulaceae: Lobelioideae). Novon 3: 437-441.

Givnish, T. J. 1994. Does diversity beget stability? Nature 371: 113-114.

Givnish, T. J. 1994. The golden bough. Science 266: 1590-1591.

Givnish, T. J., K. J. Sytsma, J. F. Smith, and W. S. Hahn. 1995. Molecular evolution, adaptive radiation, and geographic speciation in *Cyanea* (Campanulaceae, Lobelioideae). Pp. 288-337 *in* W. L. Wagner and V. Funk (ed.), Hawaiian Biogeography: Evolution on a Hot Spot Archipelago. Smithsonian Institution Press, Washington, D. C.

Givnish, T. J. 1995. Plant stems: biomechanical adaptations for energy capture and influence on species distributions. Pp. 3-49 *in* B. L. Gartner (ed.), Plant Stems: Physiology and Functional Morphology. Chapman and Hall, New York.

Hahn, W. J., T. J. Givnish, and K. J. Sytsma. 1995. Evolution of the monocot chloroplast inverted repeat: I.

Evolution and phylogenetic implications of the ORF 2280 deletion. Pp. 579-587 *in* P. J. Rudall, P. J. Cribb, D. F. Cutler, and C. J. Humphries (eds.), Monocots: Systematics and Evolution. Kew Botanical Gardens, England.

Givnish, T. J. 1995. Botanical scaling [review of K. Niklas – Plant Allometry]. Science 268: 313-314.

Leach, M. K., and T. J. Givnish. 1996. Ecological determinants of species loss in prairie remnants. Science 273: 1555-1558.

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Davis, J. I., D. W. Stevenson, C. Ané, C. W. dePamphilis, T. J. Givnish, S. W. Graham, J. H. Leebens-Mack, J. C. Pires, G. Petersen, O. Seberg, M. Thadeo, A. Cuenca, M. Ames, J. R. McNeal, and P. R. Steele. 2010. Botanical Society of America 2010 meeting – http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=638

Givnish, T., M. Barfuss, B. Van Ee, R. Riina, K. Schulte, R. Horres, P. Gonsiska, R. Jabaily, D. Crayn, A. Smith, K. Winter, B. Holst, H. Luther, W. Till, G. Zizka, P. Berry, and K. J. Sytsma. 2011. Origin, phylogeny, adaptive radiation, and geographic diversification of Bromeliaceae. XVIII International Botanical Congress, Melbourne, Abstract Book (http://www.ibc2011.com/

downloads/IBC2011_Abstract_Book.pdf , p. 187.

Leebens-Mack, J., N. Wickett, S. Ayyampalayam, M. Barker, M. B. Gonzales, T. J. Vision, J. McNeal, R. Steele, M. McKain, J. Duarte, J. C. Pires, D. Stevenson, W. R. McCombie, W. Zomlefer, T. Givnish, C. Ané, J. I. Davis, M. A. Gandolfo, M. Chase, A. Pineyro, E. Alvarez, R. Barrett, K. Thiele, G. K.-S. Wong, and C. dePamphilis. 2011. Phylogenomic analysis of transcriptomes sampled across monocot orders. XVIII International Botanical Congress, Melbourne, Abstract Book (http://www.ibc2011.com/downloads/IBC2011_Abstract_Book.pdf), p. 291.

Sessa, E., E. Zimmer, and T. Givnish. 2011. Phylogeny, physiology, and reticulate evolution: an integrated approach to North American *Dryopteris* (Dryopteridaceae). XVIII International Botanical Congress, Melbourne, Abstract Book (http://www.ibc2011.com/downloads/IBC2011_Abstract_Book.pdf), p. 307.

Ames, M., N. Williams, J. Leebens-Mack, M. Whitten, K. Neubig, M. Clements, and T. Givnish. 2011. Phylogeny and evolution of Orchidaceae: a phylogenomic perspective. XVIII International Botanical Congress, Melbourne, Abstract Book (http://www.ibc2011.com/downloads/IBC2011_Abstract_Book.pdf), p. 311.

Givnish, T., M. Barfuss, B. Van Ee, R. Riina, K. Schulte, R. Horres, P. Gonsiska, R. Jabaily, D. Crayn, A. Smith, K. Winter, B. Holst, H. Luther, W. Till, G. Zizka, P. Berry, and K. J. Sytsma. 2012. Adaptive radiation, correlated evolution, and determinants of net diversification rates in Bromeliaceae: test of an *a priori* model. Botanical Society of America 2012 meeting, Columbus OH. (http://www.botanyconference.org/engine/search/index.php?func=detail&aid=638)

Sessa, E., and Givnish T. Leaf form and photosynthetic physiology in eastern North American *Dryopteris* (Dryopteridaceae). Botanical Society of America 2012 meeting, Columbus OH. (http://www.botanyconference.org/engine/search/index.php?func=detail&aid=738)

dePamphilis, C, N. Wickett, J. Duarte, J. Der, M. McCain, J. Leebens-Mack, P. Edger, J. Pires, E. Wafula, Y. Zhang, S. Ayyampalayam, C. Barrett, J. Davis, S. Graham, R. McCombie, W. Zomlefer, D. Stevenson, and T. Givnish. 2012. Large-scale transcriptome sequencing and phylogenetic hypotheses for monocots based on analyses of 970 (and up to 1888) low-copy nuclear genes. Botanical Society of America 2012 meeting, Columbus OH. (http://www.botanyconference.org/engine/search/index.php?func=detail&aid=968)

Givnish, T. J., M. H. J. Barfuss, B. Van Ee, R. Riina, K. Schulte, R. Horres, P. A. Gonsiska, R. S. Jabaily, D. M. Crayn, J. A. C. Smith, K. Winter, G. K. Brown, T. M. Evans, B. K. Holst, H. Luther, W. Till, G. Zizka, P. E. Berry, and K. J. Sytsma. 2013. Adaptive radiation, historical biogeography, correlated and contingent evolution, and net rates of diversification in Bromeliaceae. Monocots V International Conference on the Comparative Biology of Monocots, New York Botanical Garden (https://www.regonline.com/custImages/320000/329272/July8NYBGMonocotsVAbstractBook.pdf)

Givnish, T. J., M. Ames, S. P. Lyon, K. M Cameron, K. M. Neubig, W. M. Whitten, M K. Arroyo, J. Leebens-Mack, M. Clements, and N. H. Williams. 2013. The 39 steps: a plastome phylogeny for orchid tribes, with implications for the evolution of epiphytism, CAM photosynthesis, and net rates of species diversification. Monocots V International Conference on the Comparative Biology of Monocots, New York Botanical Garden (https://www.regonline.com/custImages/320000/329272/July8NYBGMonocotsVAbstractBook.pdf)

Lyon, S. P., M. A. Clements, and T. J. Givnish. 2013. A multi-gene phylogeny of the Australasian orchid genus *Corybas,* with implications for historical biogeography, morphological evolution, and generic circumscription. Monocots V International Conference on the Comparative Biology of Monocots,

New York Botanical Garden (https://www.regonline.com/custImages/320000/329272/July8NYBGMonocotsVAbstractBook.pdf)

Pires, J. C., M. R. McKain, K. L. Hertweck, S. Unruh, D. Mayfield-Jones, J. D. Washburn, T. J. Givnish, M. A. Gandolfo, D. W. Stevenson, C. W. dePamphilis, J. Leebens-Mack. 2013. Phylogenomics of Asparagales. Monocots V International Conference on the Comparative Biology of Monocots, New York Botanical Garden (https://www.regonline.com/custImages/320000/329272/July8NYBGMonocotsVAbstractBook.pdf)

Givnish, T. J., and G. D. Farquhar. 2013. Determinants of maximum tree height in *Eucalyptus* along a steep climatic gradient in Victoria, Australia. Botanical Society of America, New Orleans (http://www.2013.botanyconference.org/engine/search/index.php?func=detail&aid=493).

Givnish, T. J., G. Bean, M. A. Sevillano, S. Lyon, and K. J. Sytsma. 2013. Phylogeny, floral evolution, and inter-island dispersal in Hawaiian *Clermontia* (Campanulaceae) based on ISSR variation and plastid spacer sequences. Botanical Society of America, New Orleans (http://www.2013.botanyconference.org/engine/search/index.php?func=detail&aid=871).

Sessa, E., T. Givnish, and M. Barker. 2013. Sequencing a Lazarus transcriptome: resurrecting "*Dryopteris semicristata*". Botanical Society of America, New Orleans (http://www.2013.botanyconference.org/engine/search/index.php?func=detail&aid=625).

Givnish, T. J., A. Zuluaga, D. Spalink, W. Iles, V. Lam, J. Moeller, B. Briggs, and W. Zomlefer. 2014. Plastome phylogeny for the monocot order Liliales. Botanical Society of America, Boise (http://www.2014.botanyconference.org/engine/search/index.php?func=detail&aid=669)

Lyon, S., Clements, M., and T. J. Givnish. 2014. Phylogeny, morphological evolution, and biogeography of the orchid subtribe Acianthinae. Botanical Society of America, Boise (http://www.2014.botanyconference.org/engine/search/index.php?func=detail&aid=760)

Givnish, T. J., D. Spalink, M. Ames, S. P. Lyon, S. J. Hunter, A. Zuluaga, W. J. D. Iles, M. A. Clements, M. T. K. Arroyo, J. Leebens-Mack, L. Endara, R. Kriebel, K. M. Neubig, W. M. Whitten, N. H. Williams, and K. M. Cameron. 2015. Orchid phylogenomics and multiple drivers of their extraordinary diversification. Botanical Society of America, Edmonton (http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=71)

Givnish, T. J. 2016. One hundred million years of bromeliad evolution. Bromeliad Society International Annual Meeting, Houston, TX: http://www.bsi.org/new/wp-content/uploads/2016/04/Tom-Givnish-Bio-Lecture-FINAL-compressed-photos.pdf

Cameron, K., R. Kriebel, D. Spalink, M. C. Pace, P. Li, C. Drummond, J. Rose, J. Zaborsky, B. Alverson, T. J. Givnish, D. Waller, and K. Sytsma. 2016. Relatedness among rare native species and invasive exotics quantified with a molecular community phylogeny of the Wisconsin flora: implications for plant conservation. Botanical Society of America, Savannah GA (2016.botanyconference.org/engine/search/index.php?func=detail&aid=477)

Spalink, D., R. Kriebel, T. J. Givnish, M. A. Feist, D. Waller, K. Cameron, and K. Sytsma. 2016. Disassembly and reassembly of the Wisconsin flora: phylogenetic and geographic patterns of diversity in a changing climate. Botanical Society of America, Savannah GA (2016.botanyconference.org/engine/search/index.php?func=detail&aid=605)

Givnish, T. J., D. Spalink, M. Ames, S. Lyon, S. Hunter, A. Zuluaga, A. Doucette, G. Giraldo, J. McDaniel, M. Clements, M. T. K. Arroyo, L. Endara, R. Kriebel, N. Williams, and K. Cameron. 2016. Orchid

historical biogeography, diversification, Antarctica, and the paradox of orchid dispersal. Botanical Society of America, Savannah GA (2016.botanyconference.org/engine/search/index.php?func=detail&aid=407).

Givnish, T., K. Sparks, S. Hunter, A. Pavlovic. 2017. What conditions favor carnivorous plants? Cost/benefit analysis and the context-specific advantages of botanical carnivory. XIX International Botanical Congress, Shenzhen, China (T2-01-02, p. 109 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Givnish, T., D. Spalink, M. Ames, S. Lyon, S. Hunter, A. Zuluaga, W. Iles, A. Doucette, G. Giraldo Caro, J. McDaniel, M. Clements, M. Arroyo, J. Leebens-Mack, L. Endara, R. Kriebel, K. Neubig, M. Whitten, N. Williams, K. Cameron. 2017. Orchid phylogenomics, multiple drivers of extraordinary diversification, and historical biogeography. XIX International Botanical Congress, Shenzhen, China (T2-16-01, p. 144 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Lyon, S., T. Givnish, M. Clements. 2017. Next-generation species delimitation and phylogeography of a recently radiated clade of Australian *Corybas*. XIX International Botanical Congress, Shenzhen, China (T2-16-02, p. 145 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Givnish, T., A. Zuluaga, S. Graham, J. Leebens-Mack, J. C. Pires, J. Davis, D. Stevenson, W. Zomlefer, C. Barrett. 2017. Plastome phylogenomics and evolution of the monocots. XIX International Botanical Congress, Shenzhen, China (T2-44-02, p. 40 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Spalink, D., R. Kriebel, T. Givnish, M. A. Feist, W. Alverson, D. Waller, K. Cameron, K. Sytsma. 2017. High-resolution phylofloristics reveals evolutionary constraints on the assembly and future migration of a regional vascular flora. XIX International Botanical Congress, Shenzhen, China (T1-10-07, p. 40 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Spalink, D., B. Drew, M. Pace, J. Zaborsky, P. Li, K. Cameron, T. Givnish, K. Sytsma. 2017. Diversification and assembly of the North American sedges (Cyperaceae): evolution of geographical place and niche space. XIX International Botanical Congress, Shenzhen, China (T1-37-07, p. 105 in IBC Abstract Book I, http://www.ibc2017.cn/Download/).

Givnish, T. J., A. Zuluaga, D. Spalink, M. Soto Gomez, V. K. Y. Lam, J. M. Saarela, C. Sass, W. J. D. Iles, D. J. Lima deSousa, J. Leebens-Mack, J. C. Pires, W. B. Zomlefer, M. A. Gandolfo, J. I. Davis, D. W. Stevenson, C. dePamphilis, C. Specht, S. W. Graham, C. F. Barrett, and C. Ané. 2018. Monocot plastid phylogenomics, timeline, and the power of multi-gene analyses. Botanical Society of America, Rochester, MN (http://www.2018.botanyconference.org/engine/search/index.php?func=detail& aid=248)

Sytsma, K. J., R. Kriebel, D. Spalink, G. Sonnier, W. Alverson, C. Bai, J. Rose, J. Zaborsky, K. M. Cameron, D. M. Waller, and T. J. Givnish. 2018. The evolution of genome size and its ecological correlates: insights using a phylogenetic tree of the Northeastern North American flora. Botanical Society of America, Rochester, MN (http://www.2018.botanyconference.org/engine/search/index.php?func=detail&aid=570)

Givnish, T. J., K. W. Sparks, S. Hunter, and A. Pavlovič. 2018. Why are plants carnivorous? Cost/benefit analysis, whole-plant growth, and the context-specific advantages of botanical carnivory. Botanical Society of America, Rochester, MN (http://www.2018.botanyconference.org/engine/search/index.php?func=detail&aid=257)

Renner, T., R. Naczi, and T. J. Givnish. 2018. Evolution, ecology, development, and conservation of carnivorous plants. Botanical Society of America, Rochester, MN (http://www.2018.botanyconference.org/engine/search/index.php?func=detail&aid=41)

Eifler, E., A. Lemmon, E. Lemmon, S. Johnson, and T. Givnish. 2019. Drivers of species diversification and floral mimicry in *Geissorhiza* (Iridaceae): phylogeny, biogeography, and vulnerability in the Greater Cape Floristic Province. Botanical Society of America, Tucson AZ (https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=1073)

Givnish, T., D. D. Smith, A. Salvi, T. N. Buckley, M. A. Adams, and K. McCulloh. 2019. Integrated adaptations to moisture supply and whole-plant growth in ten *Eucalyptus* species dominating different portions of a climatic moisture gradient in Victoria, Australia. Botanical Society of America, Tucson AZ (https://2019.botanyconference.org/engine/search/index.php?func= detail&aid=841)

Givnish, T., R. Kriebel, J. Zaborsky, J. P. Rose, D. Spalink, D. Waller, K. Cameron, and K. Sytsma. 2019. Phylogeny and trait evolution in the Wisconsin native and introduced angiosperm floras. Botanical Society of America, Tucson AZ (https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=849)

Salvi, A., D. D. Smith, K. McCulloh, and T. Givnish. 2019. Mesophyll photosynthetic sensitivity to leaf water potential increases in Eucalyptus species native to moister Australian climates: a new dimension of plant adaptation to drought. Botanical Society of America, Tucson AZ (https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=747)

Spalink, D., N. Karimi, J. Richards, T. Thein, E. Eifler, A. DiNicola, L. Schomaker, and T. Givnish. 2019. Passive seed dispersal, strong genetic structure and small spatial scale of gene flow associated with morphological divergence in the desert winter annual, *Eschscholtzia parishii*: potential implications for rapid small-scale speciation. Botanical Society of America, Tucson AZ (https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=941)

Givnish, T., A. Lemmon, E. Lemmon, A. Hernandez, E. Eifler, S. Strickler, C. Specht, and T. Givnish. 2020. Phylogenomics, reticulate evolution, historical biogeography, shifts in climatic niche, and parallel adaptive radiations in floral syndrome in the genus *Calochortus* (Liliaceae). Botanical Society of America, Virtual (http://2020.botanyconference.org/engine/search/index.php?func=detail& aid=661)

Karimi, N., A. Lemmon, E. Lemmon, C. Specht, E. Eifler, and N. Karimi. 2020. Phylogenomics, floral evolution, and formation of an ornamented ring species complex in the Bay Area clade of *Calochortus* (Liliaceae). Botanical Society of America, Virtual (http://2020.botanyconference.org/engine/search/index.php?func=detail& aid=807)

Eifler, E., A. Lemmon, E. Lemmon, and T. J. Givnish. 2020. Novel phylogenomics in *Geissorhiza* (Iridaceae): preliminary results from the Cape Floristic Province. Botanical Society of America, Virtual (http://2020.botanyconference.org/engine/search/index.php?func=detail& aid=873)

Krieg, C., S. Augustine, and T. J. Givnish. 2020. From genes to distributions: physiological ecology as an integrator of polyploid biology (Symposium introduction). Botanical Society of America, Virtual (http://2020.botanyconference.org/engine/ search/index.php?func=detail& aid=943)

Eifler, E., N. Karimi, A. R. Lemmon, E. M. Lemmon, and T. J. Givnish. 2021. Patterns of species diversification in Geissorhiza (Iridaceae): phylogeny, biogeography, and vulnerability in the Cape Floristic Region. Botanical Society of America, Virtual (https://botanyconference.org/engine/search/index.php?func=detail&aid=958)

Landis, J., A. Hernandez, M. Pinilla Vargas, J. Zhang, N. Karimi, P. Chan, E. Eifler, T. Givnish, S. Strickler, and C. Specht. 2021. Five gigs and then some: assembling a large reference genome in the Liliales (*Calochortus venustus*; Liliaceae). Botanical Society of America, Virtual (https://botanyconference.org/engine/search/index.php?func=detail&aid=737)

GRADUATE STUDENTS (1990 - present):

Timothy Montague (M.A., Botany) Comparative growth and performance of black spruce and eastern larch along peatland gradients in northern Wisconsin – M.A. awarded, 1992

Brian Pruka (M.S., IES) Distribution of savanna and woodland herbaceous species along light and soil depth gradients – M.S. awarded, 1993

Kristin Westad (M.S., IES) Adaptive management plan for the New Jersey Pine Plains – M.S. awarded, 1995

Antonio Vázquez (Ph.D., Botany) Ecology of montane rain forests in the Sierra de Manantlán, Mexico (co-advisor with H. H. Iltis) – Ph.D. awarded, 1995. **Professor, Universidad de Guadalajara**

Peter Hujik (M.S., IES) Ecology of lowland Midwestern oak savannas – M.S. awarded, 1995

Thomas Celebrezze (M.S., IES) Ecology of the endangered Karner Blue Butterfly (Rotary Foundation Fellow) – M.S. awarded, 1996; **designated outstanding Master's Thesis of 1996 at the University of Wisconsin.**

Mark Leach (Ph.D., Botany) Experimental reconstruction of oak savannas and compositional turnover along sun-shade gradients in remnant savannas – Ph.D. awarded, 1996 -> **UW Arboretum Ecologist, Professor, Northland College**

David Foster (Ph.D., Botany) Trends in the composition, structure, and diversity of forest understories along climatic and edaphic gradients in the Upper Great Lakes region (Support through USFS grant) – Ph.D. awarded, 1997. **Professor, Messiah University.**

Laurie Stockmeier (M.A., Botany) Vegetational patterning and the distribution of rare plant species in fens: test of a biogeochemical hypothesis – M.A. awarded, 1998

Thomas Patterson (Ph.D., Botany) Molecular evolution and adaptive radiation in *Calochortus* (**NSF doctoral dissertation improvement grant**) Ph.D. awarded, 1998

Austin Mast (Ph.D., Botany) Adaptive radiation and molecular evolution in Australian Proteaceae **(NSF Graduate Fellow; NSF doctoral dissertation improvement grant)** Ph.D. awarded, 2000 -> post-doctoral appointment, University of Zürich -> **Professor and Director of the Robert K. Godfrey Herbarium, Florida State University**

Jeffrey Hapeman (M.A., Botany) Molecular evolution and adaptive radiation in the rein orchids (Orchidaceae: *Platanthera*) of North America **(NSF Graduate Fellow; AOS grant)** M.A. awarded, 2004

Erica Cochrane (Ph.D., Botany/Zoology) Population dynamics and elephant seed dispersal in African rainforest trees (co-advisor with T. Moermond) (Support through **World Conservation Society grant**) Ph.D.'s awarded, 2001 -> **Coral Reef Manager, Marianas Islands; Conservation Manager, International Crane Foundation**

Melissa Chung (M.A., Botany) Genetic differentiation in endangered *Oxytropis* (**University of Wisconsin AOF fellowship**) M. S. awarded, 2001 -> **Wetland Assessment Ecologist, WI DNR.**

Frank Landis (Ph.D., Botany) Ecology of prairie and savanna mycorrhizae (**NSF doctoral dissertation improvement grant**) Ph.D. awarded, 2004 ->

Jonathan Coop (Ph.D., Botany) Causes of subalpine treelines in the Valles Caldera National Preserve (**University of Wisconsin Fellowship; NSF doctoral dissertation improvement grant**) Ph.D. awarded, 2005 -> Post-doc, Colorado State University -> **Professor, Western Colorado University**

Tara Suring (M.A., IES) Metapopulation dynamics of the federally endangered Pitcher's thistle (*Cirsium pitcheri*) M. A. awarded, 2005 -> **Landscape restoration specialist, Washington Conservation District, MN**

Kendra Millam (Ph.D., Botany) Molecular systematics and phylogeography of the *Trillium erectum* complex. Ph.D. awarded, 2006 -> **Adjunct instructor, Wright State University**

Terra Theim (Ph.D., Botany) Geographic scale of genetic differentiation in gap-phase vs. understory species of *Psychotria* (Rubiaceae): relation to vagility of seed dispersers (**Nave Fund grant**) Ph.D. awarded, 2006 -> **Professor, Edgewood College -> Coordinator, UW Microbiology Doctoral Training Program**

Jillian Henss (M.A., Botany) Spatial scales of gene flow in *Calochortus* (Liliaceae) M.S. awarded, 2006

Philip Gonsiska (Ph.D., Botany) Phylogeny and adaptive divergence in photosynthetic light responses in *Catopsis* (Bromeliaceae) Ph.D. awarded, 2010 -> **Horticulturist, Selby Botanical Gardens**

Emily Sessa (Ph.D., Botany) Phylogeny and adaptive radiation in North American *Dryopteris* (**Smithsonian research grant; NSF doctoral dissertation grant**) Ph.D. awarded, 2012 -> **post-doc, University of Arizona -> Professor, University of Florida**

Kathryn Gerndt (M.S., IES) Structural habitat of the endangered pine marten in northern Wisconsin. M.S. awarded, 2013

Robert Wernerehl (Ph.D., Botany) Causes of the distributions of dominant prairie grasses along dry-wet landform gradients. Ph.D. awarded, 2013 -> **State botanist, Massachusetts**

Stephanie Pimm Lyon (Ph.D., Botany) Phylogeny and geography of Australian *Corybas* (Orchidaceae) (**NSF Graduate fellowship; NSF doctoral dissertation grant)** Ph.D. awarded, 2014 -> **Assistant Professor and Director of the Herbarium, University of Wisconsin-Stevens Point**

Steven Hunter (Ph.D., Botany; co-advised by K. J. Sytsma and C. Ané) New analytical approaches to the study of historical biogeography (**NSF Graduate Fellowship**). Ph.D. awarded, 2018

Amanda Salvi (Ph.D., Botany; co-advised by K. McCulloh) Mesophyll photosynthetic sensitivity to leaf water potential as a drought adaptation in *Eucalyptus* (**NSF Graduate Fellowship**). Ph.D. awarded, 2020.

Evan Eifler (Ph.D., Botany) Phylogeny, biogeography, and species diversification in *Geissorhiza* (Iridaceae) in renosterveld vs. fynbos, South Africa

Valerie Gehn (M.S., Botany) Photosynthetic adaptations of forest herbs in different seasonal photosynthetic guilds

Luping Wang (Ph.D., Forest and Wildlife Ecology) Conservation biology of the endangered black muntjac in South China (co-advisor with T. van Deelen)

Patricia Chan (Ph.D., Botany) Phylogenomics, historical biogeography, evolution of floral syndromes, and speciation at small spatial scales in *Darwinia* (Myrtaceae)

Bing Li (Ph.D., Botany) Phylogenomics and historical biogeography of *Pitcairnia* (Bromeliaceae)

Post-doctoral fellows

Rebecca A. Montgomery (1999-2003) Physiological adaptations to sun and shade in the Hawaiian lobeliads – Dr. Montgomery is now Professor of Forest Resources and the Institute on the Environment at the University of Minnesota-Twin Cities

Omar R. Lopez (2003-2006) Leaf phenology and hydraulic conductivity as determinants of shade tolerance in temperate forest trees – Now at the Smithsonian Tropical Research Institute in Panamá.

Benjamin Van Ee (2006) Origin and radiation of the North American lilies – Dr. Van Ee held a post-doctoral fellowship at Harvard University, and now is Associate Professor of Biology at the University of Puerto Rico.

Mercedes Ames (2009-2012) Phylogeny of the monocotyledons; plastome phylogeny of tribes of Orchidaceae (now in the private sector)

Rebecca Shirk Kartzinel (2013-2015) Population genetics and spatial scales of gene flow in "winner" and "loser" understory species from forests in northern and southern Wisconsin (now Research Assistant Professor of Biology in Ecology and Evolutionary Biology, Brown University)

Daniel Spalink (2015-2016) Population genetics and spatial scales of gene flow in Wisconsin herbs (now Assistant Professor of Ecosystem Science and Management, Texas A&M University)

Duncan Smith (2016-2020) Common-garden studies of photosynthetic, hydraulic, and allocational adaptations in ten *Eucalyptus* species that dominate different climatic bands from temperate rain forest to mallee scrub in Victoria, Australia (co-advised by K. McCulloh)

Nisa Karimi (2020-2022) Phylogeny, historical biogeography, and floral eco-evo-devo in *Calochortus* (Liliaceae)

Visiting faculty

Yun-Dong Gao (2017-2018) Global phylogeny of *Lilium* (Gao is an Associate Professor at the Institute of Botany, Chinese Academy of Sciences, Chengdu

Recent service on Departmental and University committees:

Department of Botany: **Awards** (Chair) – 2002-2008, 2010-2012 (member) – 2008-2010, 2016-present; **Budget/Merit Raises** – 1998-2000, 2008-2010, 2016-2018; **Colloquium** (Chair) – 2014-present; **Endowments** (Chair) – 1986-2008; **Finance and Development** (Chair) – 2008-2010 (member) – 2010-2013; **Graduate Admissions** – 2011-2013; **Plant Physiological Ecology Search** (Chair) – 2012-2013; **Kate McCulloh Mentoring** (Chair) – 2013-2017; Sara **Hotchkiss Mentoring and Tenure Review** (Chair) – 2005-2009; **Greenhouse Director Search** – 2017

University of Wisconsin: **Hilldale Undergraduate Research Awards** (Chair, Biological Division) – 1991-2004; **Organization for Tropical Studies** – 1994-2008; **Recreational Sports Board** (member) – 2005-2011, (chair) – 2008-2010; **Faculty Rights & Responsibilities** (member) – 2011-2013, (chair) – 2013-2014; **Provost's Ad Hoc Committee on Faculty Misconduct** – 2014-present; **Honorary Degrees** – 2017-2021.

Word cloud based on titles of Givnish publications – note that monocots are less prominent than expected due to use of monocot and monocotyledon in titles as well