

CURRICULUM VITAE

David S. Barrington

Department of Plant Biology
111 Jeffords Hall, 63 Carrigan Drive,
University of Vermont, Burlington, VT 05405

EDUCATIONAL BACKGROUND

Ph.D. in Biology, specializing in plant systematics and evolution — Harvard University, 1975
B.S. in Biology — Bates College, 1970

EMPLOYMENT HISTORY

University of Vermont, Burlington, Vermont: 1974 – present

Professor of Botany/Plant Biology: 1988 – present
Chair, Plant Biology Dept., 2019 – present
Interim Chair, Plant Biology Dept., 2008 – 2019
Chair, Dept. of Botany & Agricultural Biochemistry, 1995 – 2002
Chair, Dept. of Botany, 1991 – 1995
Associate Professor of Botany: 1983 – 1988
Assistant Professor of Botany: 1978 – 1983
Director, Pringle Herbarium, 1974 – present.

TEACHING EXPERIENCE

Introductory Biology Courses

Lecturer: BCOR 12, Exploring Biology: 2005 – 2008, 2011
Lecturer: Biology 1,2; Principles of Biology: 1978 – 2004
Laboratory Coordinator: Biology 1, 1975 – 1983

Undergraduate Botany Courses

Morphology & Evolution of Vascular Plants: 1978 – 1991 except 1983, 1985
Field Botany: 1978 – 2015

Upper-level Courses in Botany

Plant Biology Majors Capstone Course: 2019, 2020
Biology of Ferns: 1979 – 1994, 2004 – present; alternate years
Tropical Plant Systematics: 1980 – present, alternate years
Botany Field Trip to Costa Rica: 1979 – present, alternate years

AWARDS AND HONORS

American Fern Journal 110:4. Special issue—celebrating David Barrington’s contributions to fern and lycophyte research, 2020
Botany 2019 Colloquium, Tucson AZ: Reticulate evolution and biogeography in ferns and lycophytes—a colloquium honoring Dr. David Barrington
University Faculty Marshal, University of Vermont Commencement, 2019
Merritt Lyndon Fernald Award (with Cathy Paris), for the best paper published in *Rhodora*, 2007
Phi Beta Kappa — elected to honorary membership, March 2006
Edgar T. Wherry Award (for the best contributed paper, Pteridological Section, Botanical Society of America), 2002
Kroepsch-Maurice Outstanding Teacher Award, 1987
Joseph E. Carrigan Award for Excellence in Undergraduate Teaching, 1982

RESEARCH ACTIVITIES

Publications in Refereed Journals and Books (64). ¹UVM Undergraduate students; ²UVM Graduate students.

1. Fawcett², S., A.R. Smith, M. Sundue, J.G. Burleigh, E.B. Sessa, L.-Y. Kuo, C.-W. Chen, W.L. Testo, M. Kessler, GoFlag Consortium, and D.S. Barrington. 2021. A global phylogenomic study of the Thelypteridaceae. *Systematic Botany* 46: *in press*.
2. Barrington, D.S. 2020. The biogeography of polyploid ferns across space and time. *American Fern Journal* 110: 233–254.
3. Jorgensen, S.A.^{1,2} and D.S. Barrington. 2020. Speciation and reticulation in the *Polystichum* allotetraploids of the Costa Rican Cordillera Talamanca. *American Fern Journal* 110: 151–164.
4. Cámara-Leret, R. et al. including D.S. Barrington, M.A. Sundue, and W.R. Testo². 2020. New Guinea has the world’s richest island flora. *Nature* 584: 579–583.
5. Schwartsburd, P.B., L.R. Perrie, P. Brownsey, L.D. Shepherd, H. Shang, D.S. Barrington, and M.A. Sundue. 2020. New insights into the evolution of the fern family Dennstaedtiaceae from an expanded molecular phylogeny and morphological analysis. *Molecular Phylogenetics and Evolution* 150: 1–20.
6. Barrington, D.S., N.R. Patel², and M.W. Southgate¹. 2020. Inferring the impacts of evolutionary history and ecological constraints on spore size and shape in the ferns. *Applications in Plant Sciences* 8: 1–10. <https://doi.org/10.1002/aps3.11339>
7. Agnarsson, I., J.R. Ali, and D.S. Barrington. 2019. *Vicariance Biogeography*. Oxford Bibliographies: Ecology. Oxford University Press. [Access](#).
8. Southgate, M.W.¹, N.R. Patel², and D.S. Barrington. 2019. Ecological outcome of allopolyploidy in *Adiantum* (Pteridaceae): niche intermediacy and expansion into novel habitats. *Rhodora* 121: 108–135.
9. Morero, R.E., R. Deanna, G.E. Barboza, and D.S. Barrington. 2019. Historical biogeography of the fern genus *Polystichum* (Dryopteridaceae) in Austral South America. *Molecular Phylogenetics and Evolution* 137: 168–189.
10. Testo², W., E. Sessa, and D.S. Barrington. 2019. The rise of the Andes promoted rapid diversification in Neotropical *Phlegmariurus* (Lycopodiaceae). *New Phytologist*. 222: 604–613.

11. Patel², N.R., C.X. Li, L.B. Zhang, and D.S. Barrington. 2018. Biodiversity and apomixis: insights from the East-Asian holly ferns in *Polystichum* section *Xiphopolystichum*. *Molecular Phylogenetics and Evolution* 127: 345–355.
12. Testo², W., A. Field, and D.S. Barrington. 2018. Overcoming among-lineage rate heterogeneity to infer the divergence times and biogeography of the clubmoss family Lycopodiaceae. *Journal of Biogeography* 2018: 1–13.
13. Testo², W., B. Øllgaard, A. Field, T. Almeida, M. Kessler, and D.S. Barrington. 2018. Phylogenetic systematics, morphological evolution, and natural groups in neotropical Phlegmariurus (Lycopodiaceae). *Molecular Phylogenetics and Evolution* 125: 1–13.
14. Jha, S., E. Larson, J. Humble, D. Domozych, D.S. Barrington, and M. Tierney. 2018. *Vacuolar Protein Sorting26C* encodes an evolutionarily conserved, large retromer subunit in eukaryotes that is important for root hair growth in *Arabidopsis thaliana*. *The Plant Journal* 94: 595–611.
15. Daru, B., D. Park, R.B. Primack, C. Willis, D.S. Barrington, T. Whitfield, T. Seidler, P. Sweeney, D. Foster, A. Ellison, and C. Davis. 2017. Widespread sampling biases in herbaria revealed from large-scale digitization. *New Phytologist* 217: 939–955.
16. Lyons, B.¹, M.A. McHenry², and D.S. Barrington. 2017. Insights into evolution in Andean *Polystichum* (Dryopteridaceae) from expanded understanding of the cytosolic phosphoglucose isomerase gene. *Molecular Phylogenetics and Evolution* 112: 36–46.
17. Jorgensen², S.A. and D.S. Barrington. 2017. Two Beringian origins for the allotetraploid fern *Polystichum braunii* (Dryopteridaceae). *Systematic Botany* 42: 6–16.
18. PPG I (Pteridophyte Phylogeny Group). 2016. A community-derived classification for extant lycophytes and ferns. *Journal of Systematics and Evolution* 54: 563–603.
19. C. Freitas, A.W. Meerow, J.-C. Pintaud; A. Henderson, L. Noblick; F.R.C. Costa, C. E. Barbosa, and D.S. Barrington. 2016. Phylogenetic analysis of *Attalea* (Arecaceae): insights on the historical biogeography of a recently diversified Neotropical plant group. *Botanical Journal of the Linnean Society* 182: 287–302.
20. Morero, R.E., D.S. Barrington, M.A. McHenry², J.P.S. Condack, and G.E. Barboza. 2016. Typifications and synonymy in *Polystichum* (Dryopteridaceae) from Chile and Argentina. *Phytokeys* 65: 91–105.
21. Morero, R.E., F. Chiarini, J. Urdampilleta, G. Barboza, and D.S. Barrington. 2015. Cytological study of *Polystichum* (Dryopteridaceae) species from southern South America. *Australian Journal of Botany* 63: 403–414.
22. Testo², W.L., J.E. Watkins, Jr., and D.S. Barrington. 2015. Dynamics of asymmetrical hybridization in North American wood ferns: reconciling patterns of inheritance with gametophyte reproductive biology. *New Phytologist*. 206: 785–795.
23. Testo², W.L., M.S. Grasso¹, and D.S. Barrington. 2014. Beyond antheridiogens: the role of allelopathy in competition between gametophytes of *Polypodium appalachianum* and *Polypodium virginianum*. *Journal of the Torrey Botanical Club*. 141: 302–312.
24. McHenry², M.A. and D.S. Barrington. 2014. Phylogeny and biogeography of exindusiate Andean *Polystichum* (Dryopteridaceae). *American Journal of Botany* 101: 365–375.
25. McHenry², M.A., M.A. Sundue, and D.S. Barrington. 2013. The fern genus *Adenoderris* (family insertis sedis) is artificial. *Taxon* 62: 1153–1160.
26. Condack, J.P.S., M.A. McHenry², R.E. Morero, L.S. Sylvestre and D.S. Barrington. 2013. *Polystichum montevidense* demystified: molecular and morphological data reveal a cohesive, widespread South American species. *American Fern Journal* 103: 118–130.
27. Zhang, L.B. and D.S. Barrington. 2013. *Polystichum*. In Wu, Z.Y., P.H. Raven and D.Y. Hong, eds. *Flora of China. Vol. 2–3 (Lycopodiaceae through Polypodiaceae)*. Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.

28. Barrington, D.S. and S.A. Schmitz². 2013. Quaternary Divergence and Holocene secondary contact via the Northwest Passage in the circumpolar *Lathyrus japonicus* (Leguminosae). *Rhodora* 115: 133–157.
29. McKeown M., M. Sundue, and D.S. Barrington. 2012. Phylogenetic analyses place the Australian monotypic *Revwattsia* in *Dryopteris* (Dryopteridaceae). *PhytoKeys* 14: 43–56.
30. Barrington, D.S. 2011. The fern genus *Polystichum* (Dryopteridaceae) in Costa Rica, *Annals Missouri Botanical Garden*. 98: 431–446.
31. Koenemann¹, D.M., J.A. Maisonpierre¹, and D.S. Barrington. 2011. Broad-scale integrity and local divergence in the fiddlehead fern *Matteuccia struthiopteris* (L) Todaro (Onocleaceae). *American Fern Journal* 101: 213 – 230.
32. Barrington, D.S. 2011. Should hybrids be protected by listing; *Betula* × *sandbergii* and *Botrychium minganense* in Vermont. *Journal of the Torrey Botanical Club*. 138: 465–471.
33. Dragon², J.A. and D.S. Barrington. 2009. Systematics of the *Carex aquatilis* and *C. lenticularis* lineages: geographically and ecologically divergent sister clades of *Carex* section *Phacocystis* (Cyperaceae). *American Journal of Botany* 96: 1896–1906.
34. Dragon², J.A. and D.S. Barrington. 2008. East vs. west: Monophyletic clades within the paraphyletic *Carex acuta* complex, section *Phacocystis* (Cyperaceae). Pp. 215–226 in R. F. C. Naczi & B. A. Ford (editors), *Sedges: Uses, Diversity, and Systematics of the Cyperaceae*. *Monogr. Syst. Bot. Missouri Bot. Gard.* 108.
35. Li, C. X., S.G. Lu, and D.S. Barrington. 2008. Phylogeny of Chinese *Polystichum* (Dryopteridaceae) based on chloroplast DNA sequence data (*trnL-F* and *rps4-trnS*). *Journal of Plant Research*. 121: 19–26.
36. Barrington, D.S. and C.A. Paris. 2007. Refugia and migration in the Quaternary history of the New England flora. *Rhodora* 109: 369–386.
37. Driscoll², H.E. and D.S. Barrington. 2007. Origin of Hawaiian *Polystichum* (Dryopteridaceae) in the context of a world phylogeny. *American Journal of Botany* 94: 1413–1424.
38. Lu, J.M., D.S. Barrington, and D.Z. Li. 2007. Molecular phylogeny of the polystichoid ferns in Asia based on *rbcL* sequences. *Systematic Botany* 32: 26–34.
39. Barrington, D.S. 2005. Helechos de los páramos de Costa Rica. *In* M. Kappelle and S. P. Horn [eds.] *Páramos de Costa Rica*, 375–395. InBio Press, San José, Costa Rica.
40. Driscoll¹, H.E., D.S. Barrington, and A.V. Gilman. 2003. A re-examination of the apogamous tetraploid *Phegopteris* (Thelypteridaceae) from northeastern North America. *Rhodora* 105: 309–321.
41. Barrington, D.S. 2003. *Polystichum lilianae* sp. nov. (Dryopteridaceae) and its relationships to *P. fournieri* and *P. turrialbae*. *Brittonia* 55: 317–325.
42. Little, D.P¹. and D.S. Barrington. 2003. Major evolutionary events in the origin and diversification of the fern genus *Polystichum* (Dryopteridaceae). *Am. J. Bot.* 90: 508–514
43. Berkowitz, S.D. and D.S. Barrington 1998. Race and Ethnicity: Intergroup Relations in a Multi-ethnic Society. pp 3–33. *In* Ball, H., S. D. Berkowitz, and M. Mzamane, eds. *Multicultural Education in Colleges and Universities: A Transdisciplinary Approach*. Lawrence Erlbaum Associates, London.
44. Churchill, H.W., R.M. Tryon, and D.S. Barrington. 1998. Development of the sorus in tree ferns: Dicksoniaceae. *Canadian Journal of Botany* 76: 1245–1252.
45. Paler¹, M.H. and D.S. Barrington. 1995. The hybrid *Cystopteris fragilis* x *C. tenuis* (Dryopteridaceae) and the relationship between its tetraploid progenitors. *Syst. Bot.* 20: 528–545.

46. Barrington, D.S. 1995. *Polystichum*. In R.C. Moran and R.Riba N. eds., Flora Mesoamericana. v. 1, Pteridophyta. British Museum, London.
47. Barrington, D.S. 1993. Ecological and historical factors in fern biogeography. *J. Biogeogr.* 20: 275–280.
48. Barrington, D.S. and M. Kato. 1993. Changing concepts in the biogeography of pteridophytes, the biogeography symposium at the 1990 Progress in Pteridology Conference--Ann Arbor, Michigan. *J. Biogeogr.* 20: 253–254.
49. Barrington, D.S. 1992. Climate and the disjunct distribution of *Polystichum alfariei* (Christ) Barr. in Mesoamerica. *Rhodora* 94: 327–339.
50. Barrington, D.S. 1990. A festschrift in honor of Alice Faber Tryon and Rolla M. Tryon, Jr. *Ann. Missouri Bot. Gard.* 77: 225–227.
51. Barrington, D.S. 1990. Hybridization and allopolyploidy in Central American *Polystichum*: cytological and isozyme documentation. *Ann. Missouri Bot. Gard.* 77: 297–305.
52. Paris, C.A. and D.S. Barrington. 1990. William Jackson Hooker and the generic classification of ferns. *Ann. Missouri Bot. Gard.* 77: 228–238.
53. Stein, D.B. and D.S. Barrington. 1990. Recurring hybrid formation in a population of *Polystichum x potteri*: evidence from chloroplast DNA comparisons. *Ann. Missouri Bot. Gard.* 77: 334–339.
54. Barrington, D.S. 1989. New species and combinations in tropical American *Polystichum* (Dryopteridaceae). *Ann. Missouri Bot. Gard.* 76: 365–373.
55. Barrington, D.S., C.H. Haufler, and C.R. Werth. 1989. Hybridization, reticulation, and species concepts in the ferns. *Amer. Fern J.* 79: 55–64.
56. Barrington, D.S., C.A. Paris, and T.A. Ranker. 1986. Systematic inferences from spore and stomate size in the ferns. *Amer. Fern J.* 76: 149–159.
57. Barrington, D.S. 1986. The morphology and cytology of *Polystichum X potteri* hybr. nov. *Rhodora* 88: 297–313.
58. Barrington, D.S. 1985. The morphology and origin of a new *Polystichum* hybrid from Costa Rica. *Syst. Bot.* 10: 199–204.
59. Barrington, D.S. 1985. Hybridisation in Costa Rican *Polystichum*. *Proc. Roy. Soc. Edinburgh* 86B: 335–340.
60. Barrington, D.S. 1985. The present evolutionary and taxonomic status of the fern genus *Polystichum*: The 1984 Botanical Society of America Pteridophyte Section Symposium. *Amer. Fern J.* 75: 22–28.
61. Barrington, D.S. 1983. *Cibotium oregonense*: an Eocene tree-fern stem and petioles with internal structure. *Amer. J. Bot.* 70: 1118–1124.
62. Barrington, D.S. 1978. A revision of the genus *Trichipteris*. *Contr. Gray Herb. Harvard* 208: 3–98.
63. Barrington, D.S. 1976. New taxa and nomenclatural changes in the genus *Trichipteris*. *Rhodora* 78: 1–5.
64. Barrington, D.S. and R.B. Primack, Gametophytes, p. 31, *In*: Tryon, R.M. Jr., B. Voeller, A.F. Tryon, and R. Riba. 1973. Fern Biology in Mexico-(A Class Field Program). *BioScience*, 23: 28–33.

Other Publications

1. Gilman, A.V. and D.S. Barrington. 2019. C. G. Pringle: botanist, traveler, and the “Flora of the Pacific Slope” (1881–1884). *Madroño* 66: 30–32.
2. Barrington, D.S. and C.A. Paris. 2018. David S. Conant, 1949–2018. *American Fern Journal* 108: 112–116.
3. Barrington, D.S. 2018. The Fire at the Pringle Herbarium: a disaster averted. *The Vasculum* 13: 10–13.
4. Barrington, D.S. 2011. Ross and Joyce Bell as Mentors at the University of Vermont. *ZooKeys* 147: 15–17.

Grants

- Improving Collection Access, Storage Conditions, and Growth Capacity at the University of Vermont Natural History Museum. Institute of Museum and Library Services. 2019–2021. \$222,010.
- CSBR: Natural History: Launching the University of Vermont Natural History Museum Step One: Securing the Collections. National Science Foundation. 2014–2018. \$471,072.
- Digitization PEN: Partnership to Existing Macrofungi Collection Consortium—Digitization of an Important Regional Collection of Macrofungi at the Pringle Herbarium. National Science Foundation: 2014–2017. \$31,862.
- Collaborative Research: Digitization TCN: Mobilizing New England: Vascular Plant Specimen Data to Track Environmental Changes. National Science Foundation: 2012–2015. \$101,575.
- Participation in the Global Plants Initiative by the University of Vermont’s Pringle Herbarium. Mellon Foundation: 2012–2014. \$48,991.
- Genetic Diversity and Watershed in Vermont’s fiddlehead fern (*Matteuccia struthiopteris*, Onocleaceae). CSREES: Hatch Funds 2010–2013. \$30,000.
- Assessing distribution and origins of genetic diversity in Vermont’s fiddlehead fern (*Matteuccia struthiopteris*, Onocleaceae). CSREES: Hatch funds 2007–2009. \$42,000.
- Exploring the Diversity and Evolution of Holly Ferns (genus *Polystichum*) in southwestern China. National Geographic Society 2006–2007. \$22,600.
- Genetic features and origin of wild polyploid species. CSREES: Hatch funds 2006–2007. \$15,000.
- The genetics and geography of new polyploid species origin in nature. CSREES: Hatch funds 2003–2006. \$43,000.
- Genetic variation in *Lathyrus maritimus* Bigel.; a wild legume with significant agronomic potential (with C. Paris). CSREES: Hatch funds 1999–2000. \$6,867
- Genetic variation in *Lathyrus maritimus* Bigel.; a wild legume with significant agronomic potential (with C. Paris). USDA: CSREES: Hatch funds 1998–1999. \$2,000
- A direct test of the relation between cell size and cold hardiness in a polyploid herb. Hatch Project. (\$11200)
- Population Genetics and Hybrid Evolution of Central American Tree Ferns. Univ. of Vermont Institutional Grant, 1990 (\$3000)
- Evolutionary genetics of the *Adiantum pedatum* complex: phylogeny and biogeography. National Science Foundation Doctoral Dissertation Improvement Grant with Cathy A. Paris, Ph.D. candidate, 1988 (\$11,370)
- Genetic and Structural Variation in Five Species of Tree Ferns from Puerto Rico. Univ. of Vermont Institutional Grant, 1987 (\$5420)

Morphometric and allozymic documentation of hybridization and polyploidization in the fern genus *Polystichum*. Univ. of Vermont Institutional Grant, 1985 (\$3850)

Symposia Organized

The Ecological and Historical Determinants of Pteridophyte Distribution (with Masahiro Kato, Tokyo Botanical Gardens). International Association of Pteridologists Conference, Ann Arbor, Michigan - 1990

A Festschrift in Honor of Alice F. and Rolla M. Tryon, Jr. *Annals of the Missouri Botanical Garden* 77(2):225–339. 1990.

Invited Papers at Professional Meetings

Fifty years of fern hybridization and historical biogeography: new percepts and new tools, all addressing the same fundamental questions. Botany 2019 Colloquium: Reticulate evolution and biogeography in ferns and lycophytes—a colloquium honoring Dr. David Barrington.

Migration and extinction in the history of polyploid fern species and their progenitors, Keynote Address at the Biogeography Colloquium. Next Generation Pteridology: International Conference on Lycophyte and Fern Research, Smithsonian Institution, June 2015

Recent progress in the quantitative analysis of form and color in fern hybrids. Botanical Society of America Symposium on Leveraging the Use of Herbarium Collections in Modern Systematics, August 2010.

Polystichum biogeographically: a history of vicariance, long-distance dispersal, and secondary contact. Botanical Society of America Symposium on Fern Biogeography, Snowbird, Utah, August, 2004.

The Ecological and Historical Influences on the Distribution of Pteridophytes. International Workshop on Chinese Pteridophytes, Beijing, China, May 2001.

Addressing the Speciation Process in the Montane Tropics: an Example from the Genus *Polystichum* (Dryopteridaceae), Smithsonian Conference on Biosystematics of Tropical Pteridophytes, April, 1995

Tropical American Montane Habitats as Biogeographic Islands. American Institute of Biological Sciences symposium at Honolulu, HI, August 1992

Hybridization, polyploidy, and species concepts in ferns. American Institute of Biological Sciences symposium at Columbus, OH - August 1987

Systematics of the Fern Genus *Polystichum* in southern Central America and the northern Andes, American Institute of Biological Sciences symposium at Fort Collins, CO - August, 1984.

Hybridization and speciation in Central American *Polystichum*, International Biology of Pteridophytes Symposium at Edinburgh, Scotland - September, 1983.

Theses & Dissertations Directed

Morgan Southgate, Ph.D. in progress. Influence of ecological and biogeographical factors on the course of allopolyploid speciation in the *Adiantum pedatum* complex

Susan Fawcett, Ph.D. 2020. (co-advised with Michael Sundue). A Generic Classification of the Thelypteridaceae

Nikisha Patel, Ph.D. 2017. Evolution of apomixis in the fern genera *Phegopteris* and *Polystichum* section *Xiphopolystichum*.

- Weston Testo (NSF Predoctoral Fellow), Ph.D. 2017. Phylogeography and ecological physiology of *Huperzia* and *Phlegmariurus*.
- Stacy Jorgensen, M.S. 2012. An investigation of the genetic diversity and evolutionary history of the allotetraploid fern *Polystichum braunii* (Dryopteridaceae).
- Monique McHenry, Ph.D. 2012. Systematics and biogeography of Andean ferns in the genus *Polystichum* Roth (Dryopteridaceae).
- Erin Sigel, M.S. 2008. Polyphyly of polyploid species: an inquiry into the origin of *Dryopteris campyloptera* and *Dryopteris dilatata* (Dryopteridaceae).
- Julie Dragon, Ph.D. 2006. The phylogeny and biogeography of the *Carex aquatilis* group, section *Phacocystis* (Cyperaceae).
- Heather Driscoll, M.S. 2005. Origin of Hawaiian *Polystichum* (Dryopteridaceae): evidence from *rbcL* and *trnL-F* IGS sequences.
- Julie Dragon, M.S. 2002 - Phylogeny and species delimitation in the *Carex acuta* complex.
- Sonja Schmitz, Ph.D. 2002 - Systematics of the circumboreal seabeach legume *Lathyrus maritimus*.
- Elizabeth Perkins, M.S. 1994 - A comparison of genetic diversity estimates of central and peripheral populations of jack pine (*Pinus banksiana* Lamb.).
- Beth Ann Howard, M.S. 1992 - Evolutionary Relationships of Cytotypes in the fern *Asplenium trichomanes* in eastern North America.
- MaryBeth Deller, M.S. 1992 - An Analysis of Morphology, Habitat, and Reproductive Isolation in the *Cypripedium calceolus* Complex in Vermont.
- Cathy A. Paris, M.S. 1988. - Biosystematic Revision of the *Adiantum pedatum* Complex.
- Bruce Howlett, M.S. 1990. - The Genetic Structure and Colonizing Strategy of Autopolyploid Fireweed.
- Peter T. Hope, M.S. 1987. - Morphological variation in Three Populations of the Triploid Hybrid *Dryopteris filix-mas* X *D. marginalis*.
- Catherine A. Paris, M.S. 1986. - A Biosystematic Investigation of the *Adiantum pedatum* Complex in Eastern North America.
- Roger Stern, M.S. 1982. - Morphometric and Phenologic Variability in *Ammophila breviligulata* Fernald.
- W. Donald Hudson, M.S. 1980. - The Reproductive Biology of *Saxifraga stellaris* var. *comosa*.
- Jerrold I Davis, M.S. 1978. Systematics and geography of *Phytolacca* from Chiapas, Mexico.

*Undergraduate Research Projects Directed (*resulting in publication)*

- *Morgan Southgate, 2017. Ecological Niche Differentiation of the *Adiantum pedatum* complex in the Green Mountains. Honors Thesis.
- Melita Schmeckpeper, 2016. *Polystichum munitum*-*Polystichum imbricans* alliance in Western North America: evolutionary origins and contributions to the allopolyploid species *P. californicum*. Honors Thesis.
- *Brendan Lyons, 2014. Variation of the cytosolic phosphoglucose isomerase gene in Andean *Polystichum* (Dryopteridaceae). Honors Thesis.
- *Mathew Grasso, 2013. Characteristics of Gametophyte morphology and development for *Polypodium virginianum* and *Polypodium appalachianum*.
- Abigail Flint, 2012. Phenology and selection in *Symplocarpus feotidus*.
- Kelsey Cook, 2012. Flow cytometry as a means to ploidy-level determination in the *Polypodium virginianum* complex in Vermont.
- Morgan Moeglein, 2010. Nucleus diameter as a tool in distinguishing cytotypes in New England *Polypodium* (Polypodiaceae). Honors Thesis.

- *Daniel Koenemann, 2009. Historical biogeography of the fiddlehead fern, *Matteuccia struthiopteris* (L.) Todaro (Onocleaceae) in relation to Holocene climatic improvement in northeastern North America. Honors Thesis.
- Stacy Jorgensen, 2009. What is the source of the mystery genome shared by *Polystichum orbiculatum* and *P. talamancanum*?
- *Jacqueline Maisonpierre, 2009. Distribution of genetic diversity with reference to human impacts in Vermont populations of *Matteuccia struthiopteris* (L.) Todaro (Onocleaceae).
- David Steakley, B.S. 2007. The single-copy nuclear gene *PGIc* witnesses ancestral genomes in fern hybrids and polyploids.
- Lisa Weiss, B.S. 2006. A nuclear and chloroplast DNA profile for the fern hybrid *Polystichum concinnum* x *P. speciosissimum*.
- *Heather Driscoll, B.S. 2002. Is the hybrid between *Phegopteris connectilis* and *P. hexagonoptera* really a hybrid?
- *Damon Little, B.S. 1998. A preliminary molecular phylogeny of the fern genus *Polystichum*.
- Bryan Connolly, B.S. 1996. The question of multiple periglacial origins of the northern, apogamous races of the ground-nut (*Apios americana*).
- *Michael Paler, B.S. 1993. Genetic, ecological, and biogeographic dimensions of the boundary between the allotetraploids *Cystopteris fragilis*. and *C. tenuis* in Vermont.
- Karen Lanoue, B.S. 1990. Hardiness and its contribution to fitness in polyploid races of *Polystichum* species.
- Edward Davis, B.S. 1990. Genetic characterization and evolutionary origin of the Central American fern passing as *Polystichum fournieri*.
- Gregory Adams, B.S. 1990. Comparative Morphogenesis of the Hypanthium in Three Genera of Onagraceae.
- Josephine W. Ewing, B.S. 1979. The Origin of the White Trillium in Nebraska Notch.
- Amy W. Pool, B.S. 1979. *Carex paupercula* in North America: A Taxonomic Reassessment of the Varieties.
- James C. Kelley, B.S. 1978. Phenology of the Flora of Job's Pond Cliffs.

OTHER PROFESSIONAL ACTIVITIES

University of Vermont

- Parliamentarian, University of Vermont Faculty Senate, 2021–
- College of Agriculture and Life Sciences Staff Awards Selection Committee, 2020
- President's Distinguished University Citizenship and Service Award Review Committee, 2020
- General Education Natural Sciences Ad Hoc Committee, 2020
- Chair, Greenhouse Manager Search Committee, 2020.
- College of Agriculture and Life Sciences Agricultural Research Center Reorganizing Committee, 2019–2020
- Sciences Faculty Marshall, 2019 Commencement
- University of Vermont Presidential Search Committee, 2018 – 2019
- External Review Committee, Miller Endowed Professorship in Nursing Leadership (Chair), 2018
- University of Vermont Extension Strategic Planning Steering Committee, 2017 – 2018

College of Agriculture and Life Sciences—University of Vermont Extension Transition Team, 2017
 – 2018

Faculty Committee on the Optimal Environment for Basic Science Research, Larner College of
 Medicine (Facilitator), 2017

Administrative Unit Review Subcommittee, Registrar’s Office, 2015.

Search Committee for Chair of Animal Science Dept., (Chair) 2014 – 2015

Provost’s Task Force to Inaugurate the Institute for the Environment, 2014

Review Committee for Thomas Vogelmann, Dean — College of Agriculture & Life Sciences, 2014

Incentive-Based Budgeting Subcommittee on Transdisciplinary Research and Education, 2013 –
 2014

University of Vermont Presidential Search Committee, 2011 – 2012

Joint Faculty – Administration Committee on General Education, 2010 – 2011

University of Vermont Provost Search Committee, 2010

College of Agriculture & Life Sciences Hatch Funds Review Committee, 2010 and 2011

Review Committee for Eleanor Miller, Dean — College of Arts & Sciences, 2009

UVM Transformational Change Committee, 2009.

University of Vermont Premedical Committee. 1980 – 1984 (Chair 1983 – 1984), 2006 – 2014.

UVM Honors College Curriculum Committee, CALS faculty representative, 2006 – 2014.

Faculty Standards Committee, College of Agriculture and Life Sciences (Chair). 2002 – 2006, 2007
 – 2008.

Review Committee for Jill Tarule, Dean — College of Education, 2000 – 2001

Ad Hoc Committee on a Core Curriculum, CALS. 1997 – 1998 (Chair)

Review Committee for Howard Ball, Dean — College of Arts & Sciences, 1994 – 1995 (Chair)

College of Agriculture & Life Sciences Hatch Funds Reorganization Committee, 1991 – 1992

College of Agriculture & Life Sciences International Committee, 1996 – 2004

College of Agriculture & Life Sciences Teaching Evaluation Committee, 1991 – 1993

College of Agriculture & Life Sciences Committee on Farms and Forests, 1991 – 1992

President's Task Force on Undergraduate Education 1991

College of Arts and Sciences Curriculum Committee 1988 – 1991. Chair, 1990 – 1991

Geneticist Search Committee, Botany Dept., 1987 – 1988

College of Agriculture and Life Sciences Honors Committee 1987 – 1988

University Press of New England Advisory Committee 1985 – 1990, 2004 – 2005

University of Vermont Greenhouse Committee 1982 – 1994

University Committee on Research and Scholarship 1982 – 1985

Botany Dept. Curriculum Committee 1980 – 2008 (Chair, 1983 – 1991)

Biology Dept. Behavioral Ecologist Search Committee 1977 – 1978

Service to Community and State

Moderator, Town of Jericho, 1999 – present

Member, Scientific Advisory Group on Flora, Vermont Endangered Species Committee 1985 –
 present; Secretary, 1991 – 1995

Member, Town of Jericho Planning Commission, 1988 – 1996

Member, Town of Jericho Natural Resources Advisory Committee, 1988 – 1989

Service to Societies and Organizations

Secretary-Treasurer, Pteridological Section, Botanical Society of America 2012 – present
President, New England Botanical Club 1990 – 1992
Vice President, New England Botanical Club 1988 – 1990
Councillor, New England Botanical Club 1981 – 1986
Records Treasurer, American Fern Society 1984 – 1991
Manuscript and Proposal Reviewer: American Fern Journal, Annales Botanici Fennici, Annals of the Missouri Botanical Garden, American Journal of Botany, Biological Conservation, Botanical Journal of the Linnaean Society, Botanical Studies, Brittonia, International Journal of Plant Science, Journal of Biogeography, Molecular Phylogenetics and Evolution, National Science Foundation, Rhodora, Science, Willenowia.
Peer Review: National Science Foundation;
Panel Review, National Science Foundation DEB, CSBR.

Memberships in Professional Societies

American Fern Society
American Society of Plant Taxonomists
Botanical Society of America
New England Botanical Club
Society of Herbarium Curators

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