PATRICK JOSEPH BOHLEN February 28, 2022
Curriculum Vitae

CONTACT INFORMATION

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EDUCATION

1989-1994	Ohio State University	Ph.D.	Entomology
1987-1989	Miami University	M.S.	Zoology
1983-1984	University of California, Berkeley	no degree	Entomology
1979-1983	University of Michigan	B.S.	Biology

LEADERSHIP POSITIONS

2010 – current	Director, Landscape and Natural Resources and Arboretum, University of Central Florida, Orlando, Florida
1998 – 2010	Director of Research, Agro-ecology Program, Archbold Biological Station, Lake Placid, Florida

ACADEMIC APPOINTMENTS

2010 – current	Professor, Dept. of Biology, University of Central Florida, Orlando, Florida
2010 – 2010	Senior Research Biologist, Archbold Biological Station, Lake Placid, Florida
2005 – 2010	Associate Research Biologist, Archbold Biological Station, Lake Placid, Florida
1999 – 2010	Courtesy Professor, Soil and Water Science Dept., University of Florida, Gainesville, Florida
1998 – 2004	Assistant Research Biologist, Archbold Biological Station, Lake Placid, Florida
1997 – 1999	Graduate Faculty, Bard College Graduate School of Environmental Studies, Annandale-on-Hudson, New York
1994 – 1998	Postdoctoral Research Associate, Cary Institute of Ecosystem Studies, Millbrook, New York

RESEARCH INTERESTS AND BACKGROUND

- Conservation of biodiversity in urban ecosystems and other human dominated systems.
- Pollinator ecology and conservation
- Role of biodiversity in creating sustainable human systems.
- Assessing ecosystem services in human-dominated systems.

- Applying ecological knowledge to natural resource management.
- Wetland ecology and restoration.

AWARDS AND HONORS

2007 Commissioner's Agricultural-Environmental Leadership Award, Florida Dept. of Agriculture and Consumer Services (co-recipient).
2006 Florida Cattlemen's Association Environmental Stewardship Award (co-recipient).
2004 Gamma Sigma Delta, Honor Society of Agriculture.
1993 Presidential Fellowship, Ohio State University (1 year).
1989 Director's Fellowship, Ohio Agricultural Research and Development Center (4 years).
1989 Outstanding Master's Student in Zoology, Miami University.
1988 Sigma Xi Research Award.
1983 James B. Angell Scholar, Honor's Program, University of Michigan.

PUBLICATIONS

Total publications, all categories: 115
Peer-reviewed journal articles (74)

1. Huber, A. and P. J. Bohlen. 2021. Hydro-ecological controls on soil carbon storage in subtropical freshwater depressional wetlands. Wetlands 41:66 https://doi.org/10.1007/s13157-021-01453-2.
2. Fahey, T., P. Bohlen, T. R. Feldpausch, M. Fisk, M. Goebel, P. M. Groffman, J. Maerz and J. Yavitt. 2021. Tracing carbon flow through a sugar maple forest and its soil components: role of invasive earthworms. Plant and Soil 464: 517-537 https://doi.org/10.1007/s11104-021-04971-4.
3. Boughton, E. H., P. F. Quintana-Ascencio and P. J. Bohlen. 2020. Grazing and microhabitat interact to affect plant-plant interactions in subtropical seasonal wetlands. Journal of Vegetation Science 202;00: 1-11 https://doi.org/10.1111/jvs.12962.
4. Sonnier, G., P. F. Quintana-Ascencio, P. J. Bohlen, J. E. Fauth, D. G. Jenkins and E. H. Boughton. 2020. Pasture management, grazing, and fire interact to determine wetland provisioning services in a subtropical agroecosystem. Ecosphere 11(8):e03209.10.1002/ecs2.3209 https://doi.org/10.1002/ecs2.3209.
5. Komatsu, K. J., M. L. Avolio, N. P. Lemoine, F. Isbell, E. Grman, G. R. Houseman, S. E. Koerner, D. S. Johnson, K. R. Wilcox, J. M. Alatalo, J. P. Anderson, R. Aerts, S. G. Baer, A. H. Baldwin, J. Bates, C. Beierkuhnlein, R. T. Belote, J. M. Blair, J. M. G. Bloor, P. J. Bohlen, E. W. Bork, E. H. Boughton, W. D. Bowman, A. J. Britton, J. F. Cahill Jr., E. Chaneton, N. R. Chiariello, J. Cheng, S. L. Collins, J. H. C. Cornelissen, A. Eskelinen, J. L. Firn, B. L., L. Gough, K. L. Gross, L. M. Hallett, X. Han, H. Harmens, M. J. Hovenden, A. Jagerbrand, A. Jentsch, C. Kern, K. Klanderud, A. K. Knapp, J. Kreyling, W. Li, Y. Luo, R. L. McCulley, J. R. McLaren, J. P. Megonigal, J. W. Morgan, V. G Onipchenko, S. C. Pennings, J. S. Prevéy, J. Price, P. B. Reich, C. H. Robinson, F. L.Russell, O. E. Sala, E. W. Seabloom, M. D. Smith, N. A. Soudzilovskaia, K. N. Suding, K. B. Suttle, T. Svejcar, D. Tilman, P. Tognetti, R. Turkington, S. M. White, Z. Xu, L. Yahdjian, Q. Yu, P Zhang, Y. Zhang. 2019. Global change effects on plant communities are magnified by time and the

number of global change factors imposed. Proceedings of the National Academy of Sciences., August 19, 2019. https://doi.org/10.1073/pnas.1819027116.

6. Boughton, E. H., P. F. Quintana-Ascencio, D. G. Jenkins, P. J. Bohlen, J. E. Fauth, A. Engel, S. Shukla, G. Kiker, G. Hendicks and H. M. Swain. 2019. Tradeoffs and synergies in a payment-for-ecosystem services program on ranchlands in the Everglades headwaters. Ecosphere 10(5): e02728. https://doi.org/10.1002/ecs2.2728.
7. Souto, L., C. M. Listopad and P. J. Bohlen. 2019. Forging links between social drivers and ecological processes in the residential landscape. Landscape and Urban Planning 185: 96-106. https://doi.org/10.1016/j.landurbplan.2019.01.002.
8. Koerner, S.E., M.D. Smith, D.E. Burkepile, N. Hanan, M.L. Avolio, S.L. Collings, A.K. Knapp, N.P. Lemoine, E.J. Forrestel, S. Eby, Dave I. Thompson, G. Aguado-Santacruz, J.P. Anderson, M. Anderson, A. Angassa, S. Bagchi, E.S. Bakker, G. Bastin, L.E. Baur, K.H. Beard, E.A. Beever, P.J. Bohlen, E.H. Boughton, D. Canestro, A. Cesa, E. Chaneton, J. Cheng, C.M. D'Antonio, C. Deleglise, F. Dembélé, J. Dorrough, D. Eldridge, B. Fernandez-Going, S. Fernández-Lugo, L.H. Fraser, B. Freedman, G. Garcia-Salgado, J.R. Goheen, L. Guo, S. Husheer, M. Karembé, J.M.H. Knops, T. Kraaij, A. Kulmatiski, M. Kytöviita, F. Lezama, G. Loucougaray, A. Loydi, D.G. Milchunas, S. Milton, J.W. Morgan, C. Moxham, K.C. Nehring, H.Olff, T. M. Palmer, S. Rebollo, C. Riginos, A.C. Risch, M. Rueda, M. Sankaran,, T. Sasaki, K. Schoenecker, N.L. Schultz, M. Schütz, A. Schwabe, F. Siebert, C. Smit, K.A. Stahlheber, C. Storm, D.J. Strong, J. Su, Y.V. Tiruvaimozhi, C. Tyler, J. Val, M.L. Vandegehuchte,, K.E. Veblen, L.T. Vermeire, D. Ward, J. Wu, T.P. Young,, Q. Yu, T.J. Zelikova. 2018. Resolving variation in herbivore effects on plant biodiversity – change in dominance as a global mechanism. Nature Ecology and Evolution 2: 1925-1932, October 29, 2018. https://doi.org/10.1038/s41559-018-0696-y.
9. Sonnier, G., P. J. Bohlen, H. M. Swain, S. L. Orzell, E. L. Bridges and E. H. Boughton. 2018. Assessing the success of hydrological restoration in two conservation easements within Central Florida ranchland. PLOS ONE, 13(7): e0199333. https://doi.org/10.1371/journal.pone.0199333.
10. Boughton, E. H., J. H. Maki and P. J. Bohlen. 2018. Effects of experimental season of prescribed fire and nutrient addition on structure and function of previously grazed grassland. Journal of Plant Ecology 11:576-584. https://doi.org/10.1093/jpe/rtx022.
11. Ho, J., E. H. Boughton, D. G. Jenkins, G. Sonnier, P. J. Bohlen and L. G. Chambers. 2017. Ranching practices interactively affect soil nutrients in subtropical wetlands. Agriculture, Ecosystems & Environment 254: 130-137. https://doi.org/10.1016/j.agee.2017.11.031.
12. Boughton, E. H., P. F. Quintana-Ascencio, P. J. Bohlen, J. E. Fauth and D. G. Jenkins. 2016. Interactive effects of pasture-management intensity, release from grazing, and prescribed fire on forty subtropical wetland plant assemblages. Journal of Applied Ecology 53: 159-170. https://doi.org/10.1111/1365-2664.12536.
13. Medley, K. A., E. H. Boughton, D. G. Jenkins, J. E. Fauth, P. J. Bohlen and P. F. Quintana-Ascencio. 2015. Intense ranchland management tips the balance of regional and local factors affecting wetland community structure. Agriculture, Ecosystems & Environment 212: 207-244. https://doi.org/10.1016/j.agee.2015.06.024.

14. Moore, J., R. Ouimet et Patrick Bohlen. 2015. Effect du chaulage sure la survie et de reproduction de 3 espèces de vers de terre exotiques potentiellement envahissantes dans les érablières du Québec. Le Naturaliste Canadien 139: 14-19. https://doi.org/10.7202/1030817ar.
15. Groffman, P. M., T. J. Fahey, M. C. Fisk, J. B. Yavitt, R. E. Sherman, P. J. Bohlen and J. C. Maerz. 2015. Earthworms increase microbial biomass carrying capacity and nitrogen retention in northern hardwood forest soils. Soil Biology & Biochemistry: 87: 51-58. https://doi.org/10.1016/j.soilbio.2015.03.025.
16. Ewing, H. A, A. R. Tuininga, P. M. Groffman, K. C. Weathers, T. J. Fahey, M. C. Fisk, P. J. Bohlen and E. Suarez. 2014. Earthworms reduce biotic 15-nitrogen retention in northern hardwood forest. Ecosystems. https://doi.org/10.1007/s10021-014-9831-z.
17. Gilbert, K. J., T. J. Fahey, J. C. Maerz, R. E. Sherman, P. Bohlen, J. J. Dombroskie, P. M. Groffman and J. B. Yavitt. 2014. Exploring carbon flow through the root channel in a temperate forest soil food web. Soil Biology and Biochemistry 76: 45-52. https://doi.org/10.1016/j.soilbio.2014.05.005.
18. Swain, H. M., E. H. Boughton, P. J. Bohlen and L. O. Lollis. 2013. Trade-offs among ecosystem services and disservices on a Florida ranch. Rangelands 35: 75-87. https://doi.org/10.2111/rangelands-d-13-00053.1.
19. Moore, J., R. Ouimet and P. J. Bohlen. 2013. Effects of liming on survival and reproduction of two potentially invasive earthworm species in a northern forest Podzol. Soil Biology and Biochemistry 64: 174-180. https://doi.org/10.1016/j.soilbio.2013.04.013.
20. Fahey, T. F., J. B. Yavitt, R. E. Sherman, J. C. Maerz, P. M. Groffman, M. C. Fisk and P. J. Bohlen. 2013. Earthworm effects on the incorporation of litter C and N into soil organic matter in a sugar maple forest. Ecological Applications 23: 1185-1201. https://doi.org/10.1890/12-1760.1.
21. Boughton, E., P. J. Bohlen and C. Steele. 2013. Season of fire and nutrient addition differentially affect functional group richness and species cover in subtropical grassland. Biological Conservation 158: 239-247. https://doi.org/10.1016/j.biocon.2012.09.023.
22. Fahey, T. J., J. B. Yavitt, R. E. Sherman, J. C. Maerz, P. M Groffman, M. C. Fisk and P. J. Bohlen. 2013. Earthworms, litter and soil carbon in a northern hardwood forest. Biogeochemistry 114: 269-280. https://doi.org/10.1007/s10533-012-9808-y.
23. Bohlen, P. J. and R. Villapando. 2011. Differential effects of water retention on nutrient runoff from subtropical pastures. Journal of Environmental Quality 40: 989-998. https://doi.org/10.2134/jeq2010.0127.
24. Boughton, E. H., P. F. Quintana-Ascencio, P. J. Bohlen. 2011. Differential facilitative and competitive effects of a dominant macrophyte in grazed subtropical wetlands. Journal of Ecology 99: 1263-1271. https://doi.org/10.1111/j.1365-2745.2011.01850.x.
25. Boughton, E. H., P. F. Quintana-Ascencio, P. J. Bohlen. 2011. Refuge effects of Juncus effusus in grazed, subtropical wetland plant communities. Plant Ecology 212: 451-460. https://doi.org/10.1007/s11258-010-9836-4.
26. Boughton, E., P. Quintana-Ascencio, D. Nickerson, P. J. Bohlen. 2011. Management intensity affects the relationship between non-native and native species in subtropical

wetlands. Applied Vegetation Science 14: 210-220. https://doi.org/10.1111/j.1654-109X.2010.01116.x.

27. Huang, C., P. F. Hendrix, T. J. Fahey, P. J. Bohlen and P. M Groffman. 2010. A simulation model to predict and evaluate the impacts of invasive earthworms on soil carbon cycling. Ecological Modelling 221: 2447-2457. https://doi.org/10.1016/j.ecolmodel.2010.06.023.
28. Morrison, W. R. and P. J. Bohlen. 2010. Influence of vegetation on invertebrate communities in grazed freshwater wetlands. Southeastern Naturalist 9: 453-464.
29. Boughton, E. H., P. F. Quintana-Ascencio, P. J. Bohlen, D. G. Jenkins and R. Pickert. 2009. Pasture intensification and wetland isolation influences wetland vegetation composition and structure in subtropical pastures. Ecography 33: 461-470. https://doi.org/10.1111/j.1600-0587.2009.06010.x.
30. Bohlen, P. J., S. Lynch, L. Shabman, M. Clark, S. Shukla and H. Swain. 2009. Paying for ecosystem services on agricultural lands: an example from the Northern Everglades. Frontiers in Ecology and the Environment 7: 46-55. https://doi.org/10.1890/080107.
31. Tweel, A. W. and P. J. Bohlen. 2008. Influence of soft rush (*Juncus effusus*) on phosphorus flux in grazed seasonal wetlands. Ecological Engineering 33: 242-251. https://doi.org/10.1016/j.ecoleng.2008.05.003.
32. Wall, D. et al. (36 authors). 2008. Global decomposition experiment shows soil animal impacts on decomposition are climate dependent. Global Change Biology 14: 2661-2677. https://doi.org/10.1111/j.1365-2486.2008.01672.x.
33. Capece, J. C., K. L. Campbell, P. J. Bohlen, D. A. Graetz and K. M. Portier. 2007. Soil phosphorus, cattle stocking rates, and water quality in subtropical pastures in Florida. Rangeland Ecology and Management 60: 19-30. https://doi.org/10.2111/05-072R1.1.
34. Swain, H. M., P. J. Bohlen, K. L. Campbell, L. O. Lollis and A. D. Steinman. 2007. Integrated ecological and economic analysis of ranch management systems; an example from south central Florida. Rangeland Ecology and Management 60: 1-11. https://doi.org/10.2111/05-071R1.1.
35. Bohlen, P. J. and S. M. Gathumbi. 2007. Nitrogen cycling in seasonal wetlands in subtropical cattle pastures. Soil Science Society of America Journal 71: 1058-1065. https://doi.org/10.2136/sssaj2005.00217.
36. Frelich, L. E., C. M. Hale, S. Scheu, A. Holdsworth, L. Heneghan, P. J. Bohlen and P. B. Reich. 2006. Earthworm invasion into previously earthworm-free temperate and boreal forests. Biological Invasions 8: 1235-1245. https://doi.org/10.1007/s10530-006-9019-3.
37. Zielinski, R. A., W. R. Orem, K. P. Simmons and P. J. Bohlen. 2006. Fertilizer-derived uranium and sulfur in rangeland soil and runoff; a case study in central Florida. Water, Air, & Soil Pollution 176: 163-183. https://doi.org/10.1007/s11270-006-9156-4.
38. Wang, K-H, R. McSorley, P. Bohlen and S. M. Gathumbi. 2006. Cattle grazing increases microbial biomass and alters soil nematode communities in subtropical pastures. Soil Biology & Biochemistry 38: 1956-1965. https://doi.org/10.1016/j.soilbio.2005.12.019.
39. Suárez, E. R., T. J. Fahey, P. M. Groffman, J. B. Yavitt and P. J. Bohlen. 2006. Spatial and temporal dynamics of exotic earthworm communities along invasion fronts in a temperate hardwood forest in South-Central New York (USA). Biological Invasions 8(4): 553-564. https://doi.org/10.1007/s10530-005-1196-y.

40. Suárez, E. R., T. J. Fahey, J. B. Yavitt, P. M. Groffman and P. J. Bohlen. 2006. Patterns of litter disappearance in a northern hardwood forest invaded by exotic earthworms. Ecological Applications 16: 154-165. https://doi.org/10.1890/04-0788.
41. Bohlen, P. J. 2006. Biological invasions: linking the aboveground and belowground consequences. Applied Soil Ecology 32: 1-5. https://doi.org/10.1016/j.apsoil.2005.10.001.
42. Gathumbi, S. M, P. J. Bohlen and D. A. Graetz. 2005. Nutrient enrichment of wetland plants and sediments in subtropical pastures. Soil Science Society of America Journal 69: 539-548. https://doi.org/10.2136/sssaj2005.0539.
43. Bohlen, P. J., S. Scheu, C. M. Hale, M. A. McLean, S. Migge, P. M. Groffman and D. Parkinson. 2004. Non-native invasive earthworms as agents of change in north temperate forests. Frontiers in Ecology and the Environment 2: 427-435. https://doi.org/10.1890/1540-9295(2004)002[0427:NIEAAO]2.0.CO;2.
44. Domínguez, J., P. J. Bohlen and R. W. Parmelee. 2004. Earthworms increase nitrogen leaching to greater soil depths in row crop agroecosystems. Ecosystems 7: 672-685. http://doi.org/10.1007/s10021-004-0150-7.
45. Bohlen, P. J., P. M. Groffman, T. J. Fahey, M. C. Fisk, E. Suárez, D. M. Pelletier and R. T. Fahey. 2004. Ecosystem consequences of exotic earthworm invasion of north temperate forests. Ecosystems 7: 1-12. https://doi.org/10.1007/s10021-003-0126-z.
46. Bohlen, P. J., D. M. Pelletier, P. M. Groffman, T. J. Fahey, and M. C. Fisk. 2004. Influence of earthworm invasion on redistribution and retention of soil carbon and nitrogen in northern temperate forests. Ecosystems 7: 13-27. https://doi.org/10.1007/s10021-003-0127-y.
47. Suárez, E. R., D. M. Pelletier, T. J. Fahey, P. M. Groffman, P. J. Bohlen and M. C. Fisk. 2004. Effects of exotic earthworms on soil phosphorus cycling in two broadleaf temperate forests. Ecosystems 7: 28-44. https://doi.org/10.1007/s10021-003-0128-x.
48. Groffman, P. M., P. J. Bohlen, M. C. Fisk and T. J. Fahey. 2004. Exotic earthworm invasion and microbial biomass in temperate forest soils. Ecosystems 7: 45-54. https://doi.org/10.1007/s10021-003-0129-9.
49. Fisk, M. C., T. J. Fahey, P. M. Groffman and P. J. Bohlen. 2004. Earthworm invasion, fine-root distributions, and soil respiration in north temperate forests. Ecosystems 7: 55-62. https://doi.org/10.1007/s10021-003-0130-3.
50. Steinman, A. D., J. Conklin, P. J. Bohlen, and D. G. Uzarski. 2003. Influence of cattle grazing and pasture land use on macroinvertebrate communities in freshwater wetlands. Wetlands 23: 877-889. https://doi.org/10.1672/0277-5212(2003)023[0877:IOCGAP]2.0.CO;2.
51. Shuster, W. D., M. J. Shipitalo, P. J. Bohlen, S. Subler and C. A. Edwards. 2003. Population dynamics of ambient and altered earthworm communities in row-crop agroecosystems in the Midwestern U.S. Pedobiologia 47: 825-829. https://doi.org/10.1078/0031-4056-00266.
52. Li, X., M. C. Fisk, T. J. Fahey and P. J. Bohlen. 2002. Influence of earthworm invasion on soil microbial biomass and activity in a northern hardwood forest. Soil Biology & Biochemistry 34: 1929-1937. https://doi.org/10.1016/S0038-0717(02)00210-9.
53. Hendrix, P. F. and P. J. Bohlen. 2002. Exotic earthworm invasions in North America: ecological and policy implications. Bioscience 52: 801-811. https://doi.org/10.1641/0006-3568(2002)052[0801:EEIINA]2.0.CO;2.

54. Bohlen, P. J., C. A. Edwards, Q. Zhang, R. W. Parmelee and M. Allen. 2002. Indirect effects of earthworms on microbial assimilation of labile carbon. Applied Soil Ecology 20: 255-261. https://doi.org/10.1016/S0929-1393(02)00027-6.
55. Bohlen, P. J., P. M. Groffman, C. T. Driscoll, T. J. Fahey and T. G. Siccama. 2001. Plant-soil-microbial interactions in a northern hardwood forest. Ecology 82: 965-978. https://doi.org/10.1890/0012-9658(2001)082[0965:PSMIIA]2.0.CO;2.
56. Butt, K. R., M. J. Shipitalo, P. J. Bohlen, W. M. Edwards and R. W. Parmelee. 1999. Long-term trends in earthworm populations of cropped experimental watersheds in Ohio, USA. Pedobiologia 43: 713-719.
57. Bohlen, P. J., R. W. Parmelee, M. F. Allen and Q. M. Ketterings. 1999. Differential effects of earthworms on nitrogen cycling from various nitrogen-15-labeled substrates. Soil Science Society of America Journal 63: 882-890. https://doi.org/10.2136/sssaj1999.634882x.
58. Groffman, P. M. and P. J. Bohlen. 1999. Soil and sediment biodiversity: Cross-system comparisons and large-scale effects. Bioscience 49: 139-148. https://doi.org/10.2307/1313539.
59. Arnone, J. A., III and P. J. Bohlen. 1998. Stimulated N2O flux from intact grassland monoliths after two growing seasons under elevated atmospheric CO2. Oecologia 116: 331-335. https://doi.org/10.1007/s004420050594.
60. Anderson, O. R. and P. J. Bohlen. 1998. Abundance and diversity of gymnamoebae associated with earthworm (Lumbricus terrestris) middens in a northeastern U.S. forest. Soil Biology & Biochemistry 30: 1213-1216. https://doi.org/10.1016/S0038-0717(97)00247-2.
61. Burtelow, A. E., P. J. Bohlen and P. M. Groffman. 1998. Influence of exotic earthworms on soil organic matter, microbial biomass and denitrification potential in forest soils of the northeastern United States. Applied Soil Ecology 9: 197-202. https://doi.org/10.1016/S0929-(98)00075-4.
62. Bohlen, P. J., R. W. Parmelee, D. A. McCartney and C. A. Edwards. 1997. Earthworm effects on the carbon and nitrogen dynamics of surface litter in corn agroecosystems. Ecological Applications 7: 1341-1349. http://www.jstor.org/stable/2641218.
63. McDonnell, M. J., S. T. A. Pickett, R. V. Pouyat, R. W. Parmelee, M. Carreiro, P. Groffman, P. Bohlen, W. C. Zipperer and K. Medley. 1997. Ecosystem processes along urban-to-rural gradients. Urban Ecosystems 1: 21-36. https://doi.org/10.1023/A:1014359024275.
64. Parmelee, R. W., C. T. Phillips, R. T. Checkai and P. J. Bohlen. 1997. Determining the effects of pollutants on soil faunal communities and trophic structure using a refined microcosm system. Environmental Toxicology and Chemistry 16: 1212-1217. https://doi.org/10.1002/etc.5620160616.
65. McCartney, D., B. R. Stinner and P. J. Bohlen. 1997. Organic matter dynamics in maize agroecosystems as affected by earthworm manipulations and fertility sources. Soil Biology & Biochemistry 29: 97-400. https://doi.org/10.1016/S0038-0717(96)00171-X.
66. Schindler-Wessells, M., P. J. Bohlen, D. A. McCartney and C. A. Edwards. 1997. Earthworm effects on soil respiration in corn agroecosystems with different nutrient inputs. Soil Biology & Biochemistry 29: 409-412. https://doi.org/10.1016/S0038-0717(96)00172-1.

67. Rodenhouse, N. L., P. J. Bohlen and G. W. Barrett. 1997. Effects of woodland shape on the spatial distribution and density of 17-year periodical cicadas (Homoptera: Cicadidae). American Midland Naturalist 137: 124-135. http://www.jstor.org/stable/2426761.
68. Bohlen, P. J., R. W. Parmelee, J. M. Blair, C. A. Edwards and B. R. Stinner. 1995. Efficacy of methods for manipulating earthworm populations in large-scale field experiments in agroecosystems. Soil Biology & Biochemistry 27: 993-999. https://doi.org/10.1016/0038-0717(95)00025-A.
69. Bohlen, P. J. and C. A. Edwards. 1995. Earthworm effects on N dynamics and soil respiration in microcosms receiving organic and inorganic nutrients. Soil Biology & Biochemistry 27: 341-348. https://doi.org/10.1016/0038-0717(94)00184-3.
70. Bohlen, P. J., W. M. Edwards and C. A. Edwards. 1995. Earthworm community structure and diversity in experimental agricultural watersheds in Northeastern Ohio. Plant and Soil 170: 233-239. https://doi.org/10.1007/978-94-011-0479-1_23.
71. Edwards, C. A. and P. J. Bohlen. 1995. The effects of contaminants on the structure and function of soil communities. Acta Zoologica Fennica 196: 284-289.
72. Blair J. M., P. J. Bohlen, B. R. Stinner and C. A. Edwards. 1995. Manipulation of earthworm populations in field experiments in agroecosystems. Acta Zoologica Fennica 196: 48-51.
73. Edwards, C. A. and P. J. Bohlen. 1992. The effects of toxic chemicals on earthworms. Reviews of Environmental Contamination and Toxicology 125: 23-99. https://doi.org/10.1007/978-1-4612-2890-5_2.
74. Bohlen, P. J. and G. W. Barrett. 1990. Dispersal of the Japanese beetle (Coleoptera: Scarabaeidae) in strip-cropped soybean agroecosystems. Environmental Entomology 19: 955-960. https://doi.org/10.1093/ee/19.4.955.

Books

1. Bohlen, P. J. and G. J. House (eds.). 2009. Sustainable agroecosystem management: integrating, ecology, economics and society. CRC Press, Taylor and Francis Group, Advances in Agroecology Series, Boca Raton, FL, 301 pp.
2. Edwards, C. A. and P. J. Bohlen. 1996. Biology and ecology of earthworms. Chapman and Hall, London, U.K., 426 pp.

Book chapters and proceedings (16)

1. Boughton, E. H., P. J. Bohlen, S. L. Orzell, E. L. Bridges, R. F. Noss. 2018. Conservation and management of subtropical grasslands in south-central Florida. In Southeastern Grasslands, Biodiversity, Ecology, and Management, J. G. Hill and J. A. Barone (eds.), p. 209-221. University of Alabama Press, Tuscaloosa, AL, 334 pp.
2. Bohlen, P. J. and H. M. Swain. 2009. Integrating ecological and economic sustainability in agroecosystems: an example from subtropical grazing lands. In Sustainable agroecosystem management: integrating, ecology, economics and society, P. J. Bohlen, G. J. House (eds.), p. 235-258. CRC Press, Taylor and Francis Group, Boca Raton, FL, 301 pp.
3. Bohlen, P. J. and G. J. House. 2009. Agroecosystem management for the 21st century: sustaining ecosystems, economies and communities in a time of global change. In Sustainable agroecosystem management: integrating, ecology, economics and society, P. J.

Bohlen, G. J. House (eds.), p. 1-12. CRC Press, Taylor and Francis Group, Boca Raton, FL, 301 pp.

4. Bohlen, P. J. and H. M. Swain. 2007. Ranching for environmental services: public benefits from private lands. Proceedings of the 3rd National Conference on Grazing Lands, St. Louis, MO, p. 109-116. Grazing Lands Conservation Initiative, Society for Range Management, Denver, CO.
5. Zhang, J., J. G. Hiscock, A. B. Bottcher, B. M. Jacobson and P. J. Bohlen. 2006. Modeling phosphorus load reductions of agricultural water management practices on a beef cattle ranch. Paper No. 062010, 2006 ASAE Annual Meeting. American Society of Agricultural and Biological Engineers, St. Joseph, MI. 12 pages.
6. Bohlen, P. J. 2006. Earthworms. In Encyclopedia of soil science, 2nd Edition, R. Lal (ed.), p. 497-501. Marcel Dekker, Inc., NY.
7. Bohlen, P. J., R. W. Parmelee and J. M. Blair. 2004. Integrating the effects of earthworms on nutrient cycling across spatial and temporal scales. In Earthworm ecology, 2nd edition, C. A. Edwards (ed.), p. 161-180. CRC Press, Boca Raton, FL.
8. Parmelee, R. W., P. J. Bohlen and J. M. Blair. 1998. Earthworms and nutrient cycling processes: integrating across the ecological hierarchy. In Earthworm ecology, C. A. Edwards (ed.), p. 123-143. St. Lucie Press, Delray Beach, FL.
9. Bohlen, P. J. 2002. Earthworms. In Encyclopedia of soil science, R. Lal (ed.), p. 370-373. Marcel Dekker, Inc., NY.
10. Blair, J. M., P. J. Bohlen and D. W. Freckman. 1997. Soil invertebrates as indicators of soil quality. In Methods for assessing soil quality, J. W. Doran, A. J. Jones (eds.), p. 273-292. Soil Science Society of America Special Publication Number 49, SSSA, Madison, WI.
11. Pouyat, R. V., P. M. Groffman, M. M. Carreiro, P. J. Bohlen and R. W. Parmelee. 1996. Temperature and earthworm effects on C and N dynamics in oak stands along an urban-rural land use gradient. Proceedings, 1995 Meeting of the Northern Global Change Program.
12. Edwards, C. A., P. J. Bohlen, D. R. Linden and S. Subler. 1995. Earthworms in agroecosystems. In Earthworm ecology and biogeography in North America, P. F. Hendrix (ed.), p. 185-214. Lewis Publisher, Chelsea, MI.
13. Parmelee, R. W., P. J. Bohlen and C. A. Edwards. 1995. Analysis of nematode trophic structure in agroecosystems: Functional groups versus high-resolution taxonomy. In The significance and regulation of soil biodiversity, H. P. Collins G. P. Robertson and M. J. Klug (eds.), p. 203-208. Kluwer Academic Press, The Netherlands.
14. Bohlen, P. J. and C. A. Edwards. 1994. The response of nematode trophic groups to organic and inorganic nutrient inputs in agroecosystems. In Defining soil quality for a sustainable environment, J. W. Doran (ed.), p. 235-244. SSSA Special Publication no. 34.
15. Barrett, G. W. and P. J. Bohlen. 1991. Landscape ecology. In Landscape linkages and biodiversity, W. E. Hudson (ed.), p. 149-161. Island Press, Covelo, CA.
16. Barrett, G. W., N. Rodenhouse and P. J. Bohlen. 1990. Role of sustainable agriculture in rural landscapes. In Sustainable agricultural systems, C. A. Edwards, R. Lal, P. Madden, R. H. Miller and G. House (eds.), p. 624-636. Soil and Water Conservation Society, Ankeny, IA.

Other publications, including technical reports, commentaries, book reviews, and extension documents (23)

1. Listopad, C., L. Souto and P. Bohlen. 2014. Tampa Bay residential stormwater evaluation final project report. Tampa Bay Estuary Program, Tampa, FL. 105 pp.
2. Boughton, B. and P. Bohlen. 2009. Wetland plant communities in improved and native pastures at Buck Island Ranch. The Florida Cattleman and Livestock Journal 74: 77-83.
3. Bohlen, P. J. 2009. Pasture water management for reduced phosphorus loading in the Lake Okeechobee watershed. Final report for Contract No. RS040348. South Florida Water Management District Contract, West Palm Beach, FL. 57 pp.
4. Bohlen, P. and S. Lynch. 2009. Florida ranchlands environmental services field day a success. The Florida Cattleman and Livestock Journal 73: 46-49.
5. Bohlen, P. J. 2008. Can agriculture fuel the world? CSA News 53(6): 15.
6. Campbell, K. L., G. A. Kiker, C. J. Martinez, P. J. Bohlen and J. Capece. 2007. Pasture water management for reduced phosphorus loading in the Lake Okeechobee watershed. Final report submitted to the Florida Dept. of Agriculture and Consumer Services. Contact No. 10808.
7. Clark, M. P. Bohlen, L. Shabman, S. Shukla, S. Hollingsed and S. Lynch. 2007. A Multi-service environmental documentation approach to measure the provision of water management services on Florida ranchlands. Report of the documentation team of the Florida Ranchlands Environmental Services Project.
8. Swain, H. and P. Bohlen. 2005. Incentives for encouraging innovation in generating environmental services on cattle ranches: the ecologist's perspective. In Building a Scientific Basis for Green Payments, S. Lynch and S.S. Batie (eds.), p. 15-17. A report on a workshop sponsored by the USDA-CSREES, WWF, and Elton Smith Endowment at Michigan State Univ., April 14-15, Washington, D.C.
9. Lynch, S., L. Asmussen, J. McGrann, L. Shabman, P. Bohlen, H. Swain, M. Adams, J. Alderman, G. Lollis, P. Pfeil and W. Williamson. 2005. Assessing on-ranch provision of water management environmental services. Final Report submitted to the South Florida Water Management District and Florida Dept. of Agriculture and Consumer Services. 16 pp.
10. Bohlen, P. J. and J. Kokemor. 2005. How do cattle concentration areas affect soil phosphorus? The Florida Cattleman and Livestock Journal 69:56-59.
11. Main, M., M. E. Swisher, J. Mullahey, W. DeBusk, A. J. Shriar, G. W. Tanner, J. Selph, P. Hogue, P. Bohlen, and G. M. Allen. 2004. The ecology and economics of Florida's ranches. Florida Cooperative Extension Service Publication WEC 187. University of Florida, Gainesville.
12. Bohlen, P. J. 2004. Optimization of water quality best management practices (BMPs) for beef cattle ranching in the Lake Okeechobee Basin. Final Report for Contract C-13414, South Florida Water Management District, West Palm Beach, FL. 35 pp.
13. Capece, J. C., K. L. Campbell, D. A. Graetz, K. M. Portier, P. J. Bohlen, M. Siddo, M. Fidler and G. S. Hendricks. 2003. Optimization of best management practices for beef cattle ranching in the Lake Okeechobee Basin—Part 2. Final Report to the Florida Department of Environmental Protection for a Section 319 Nonpoint Source Management Program Grant from the USEPA, Project WM796.

14. Bohlen, P. J., M. Clark and M. Flinchum. 2003. Restoring wetlands on cattle ranches in South Florida. The Florida Cattleman and Livestock Journal 68(2): 19-23.
15. Bohlen, P. J., H. Swain, K. L. Campbell, D. A. Graetz and J. C. Capece. 2003. Contributions of beef cattle ranches to surface water quality in the Lake Okeechobee Basin. Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, GEER Program and Abstracts, p 30-31.
16. Arthington, J., P. Bohlen, F. Roka. 2003. Effect of stocking rate on measures of cow-calf productivity and nutrient loads in surface water runoff. Florida Cooperative Extension Service Publication AN141. University of Florida, Gainesville.
17. Arthington, J., P. Bohlen, F. Roka. 2003. Effects of stocking rate on measures of cow-calf productivity and nutrient loads in surface water runoff. The Florida Cattleman and Livestock Journal 67(9): 7-9.
18. Bohlen, P. J. 2002. Linking the aboveground and belowground components of ecosystems. Communities and ecosystems: Linking the aboveground and belowground components. Wardle, D. A. 2001. Princeton University Press, Princeton, New Jersey. vii + 392 p. Ecology 84: 838-842 (book review).
19. Bohlen, P. J. 2001. The contribution of beef cattle ranches to surface water quality. The Florida Cattleman and Livestock Journal 66(1): 28-40.
20. Capece, J. C., K. L. Campbell, D. A. Graetz, K. M. Portier and P. J. Bohlen. 2000. Optimization of best management practices for beef cattle ranching in the Lake Okeechobee Basin. Final Report to the Florida Department of Environmental Protection for a Section 319 Nonpoint Source Management Program Grant from the USEPA, Project WM699.
21. Bohlen, P. J. 2000. A gap in tropical soil biology is filled. Earthworm management in tropical agroecosystems. P. Lavelle, L. Brussaard and P. Hendrix (eds.). 1999. CAB International, New York. xii + 300p. ISBN 0-85199-270-6. Soil Biology & Biochemistry 32: 1329-1330 (book review).
22. Swisher, M. E., J. Mullahey, W. DeBusk, M. Main, A. J. Shriar, G. W. Tanner, J. Selph, P. Hogue and P. Bohlen. 2000. The ecology and economics of Florida's ranches. Florida Cooperative Extension Service, IFAS, University of Florida, Document # SS-SA-8.
23. Bohlen, P. J. 1994. Proceedings of the international workshop on methods of research on soil structure/soil biota interrelationships. L. Brussaard and M. J. Kooistra (eds.). 1993. Elsevier Science, Amsterdam, 829 pp. Applied Soil Ecology 1: 83-84 (book review).

Submitted manuscripts

1. Skovira, L. and P. J. Bohlen. Nutrient status and management intensity of stormwater ponds in different urban land-uses. Urban Ecosystems (in revision).
2. Shukla, S., A. Lomeu, G. Kiker, A. Shukla, C-L Wu, R. Sishodia, G. Hendricks, A. C. Guzha, E. H. Boughton, H. M. Swain, P. J. Bohlen, D. G. Jenkins and J. Fauth. Using biodiversity response for prioritizing participants and service provisions in a payment-for-water-storage program in the Everglades basin. 2021. Journal of Hydrology (in revision).

Total grants, contracts and projects as PI, Project Director, or co-PI: $7,233,742 (P. Bohlen share of $14,354,573 total project funds)

1. Assessing native plant material for use in ecologically sound, resource efficient residential landscapes and developments. Sunbridge Stewardship District. 2022-2024. $54,000.
2. Increasing community engagement at the UCF Arboretum. P. Bohlen, K. Matta, M. Erichsen. TD Bank Charitable Foundation Vibrant Planet—Green Spaces program. Award to UCF Foundation. 2019-2020. $10,000.
3. Replacement of suitable trees for hurricane preparedness. P. Bohlen (PI). Florida Department of Agriculture and Consumer Services, 2019. $14,832.
4. Farm to table multigenerational connections. Y. Zhong (PI), W. Wei, D. Gammonley and P. Bohlen (Co-PIs). Rosen College of Hospitality Management, Dean's Research Clusters Program, 2018-2019. $10,000.
5. WSC-Category 2 Collaborative: Robust decision-making for South Florida water resources by ecosystem service valuation, hydro-economic optimization and conflict resolution modeling. National Science Foundation Water Sustainability and Climate Program. 2013-2018. $126,125 (P. Bohlen share of $1,540,583 award).
6. Maintenance practices for stormwater runoff, Phase 1 and 2. Ni-Bin Chang (PI), P. Bohlen and M. Wanielista (Co-PIs). Florida Dept. of Transportation Contract No. BDK78 TWO97709. 2012-2015. $289,197.
7. Tampa Bay social and environmental sampling. P. Bohlen (PI) and L. Souto (Co-PI). Subcontract from Applied Ecology, Inc., for "Residential stormwater quality evaluation for the Tampa Bay area," funded by the Tampa Bay Estuary Program. 2012-2014. $44,010 (P. Bohlen share of $200,000 award).
8. Advancing methods to integrate social and environmental data. L. Souto (PI), P. Bohlen (Co-PI). Florida Department of Environmental Protection, 2012-2013. $87,699.
9. Best management practices for aquatic restoration in lakes and streams. Ni-Bin Chang (PI), P. Bohlen and M. Wanielista (Co-PIs). Florida Fish and Wildlife Conservation Commission. 2012-2013. $80,000.
10. Assessing trade-offs among ecosystem services in a payment-for-water services program on Florida ranchlands. P. Bohlen (PI), D. Jenkins, P. Quintana-Ascencio, J. Fauth, S. Shukla, and G. Kiker (Co-PIs). EPA-G2008-STAR-K1 special funding opportunity: Enhancing ecosystem services from agricultural lands: management, quantification, and developing decision support tools. 2010-2014. $480,853.
11. Paying for environmental services from Florida ranchlands: moving from pilot phase to program operation. Awarded to World Wildlife Fund (WWF) by the USDA Conservation Innovation Grant Program. S. Lynch (PI), L. Shabman, P. Bohlen, H. Swain and others (Co-PIs). 2008-2010. $583,349 (P. Bohlen share of $1,900,963 project funds that include $950,481 from the CIG grant and an equal match from the Florida Dept. of Agriculture and Consumer Services).
12. Demonstration and assessment of water management BMP alternatives for phosphorus and water retention in the Lake Okeechobee basin. S. Shukla (PI) and P. Bohlen (Co-PI). Contract No. G0231, Florida Department of Agriculture and Consumer Services, USEPA 319 Program. 2007-2009. $211,811.

13. Synergistic effects of cattle grazing, fire and pasture management on wetland ecosystems. P. Bohlen (PI), D. Jenkins, P. Quintana-Ascencio and J. Fauth (Co-PIs). USDA-NRI Managed Ecosystems Program, Award No. 2006-01378. 2006-2009. $399,867.
14. Agroecosystem management for the 21st century (conference proposal). USDA-NRI Managed Ecosystems Program, Award No. 2006-01400. P. Bohlen (PI), R. Lowrance, M. Wander, L. Drinkwater (Co-PIs). 2006-2007. $10,000.
15. Invasion of north temperate forest soils by exotic earthworms. P. Groffman, T. Fahey, J. Yavitt, J. Maerz, M. Fisk and P. Bohlen. National Science Foundation Ecosystems Program, Award No. 0543065. 2006-2010. $50,000 (P. Bohlen share of $870,800 collaborative project).
16. Market-based program for environmental services on south Florida ranch lands. USDA-NRCS Conservation Innovation Grant to the World Wildlife Fund (WWF). S. Lynch (PI), WWF, L. Shabman, P. Bohlen, H. Swain and others (Co-PIs). 2005-2007. $999,923. Matching funds to project include $500,000 each from the South Florida Water Management District and Florida Dept. of Agriculture and Consumer Services. Project received additional $2 million from Florida legislature in 2006 for total project funds of $4 million. Total share of project funds to P. Bohlen and MAERC was $548,084 for research/documentation and $573,000 for implementation and participation ($1,121,084).
17. Development of a management-focused, spatial decision support tool to simulate water resource effects of climate forecasting within southern Florida beef cattle agroecosystems. G. Kiker (PI), P. Bohlen, H. Swain, K. L. Campbell (Co-PIs). USDA. 2005-2006. $40,000.
18. Curricular development and capacity building in agro-ecology sciences. USDA, Hispanic-Serving Institutions Education Grants Program. M. Bhat (PI), K. Jayachandran, A. Melesse, and S. Koptur (Co-PIs). 2005-2006. $15,000 (P. Bohlen, share of $223,000 award).
19. Pasture water management for reduced phosphorus loading in the Lake Okeechobee watershed. Contract No. 10808, Florida Dept. of Agriculture and Consumer Services. K. Campbell (PI), P. Bohlen, J. Capece and D. Graetz (Co-PIs). 2005-2006. $207,333.
20. Pasture water management for reduced phosphorus loading in the Lake Okeechobee watershed. Contract No. 040348, South Florida Water Management District. P. Bohlen (PI). 2004-2008. $330,641.
21. Monitoring the success of wetland restoration in two USDA Wetland Reserve Program sites in subtropical rangelands of south Florida. John D. and Catherine T. MacArthur Foundation. P. Bohlen, H. Swain, L. Lollis. 2003-2006. $250,000.
22. Optimization of best management practices for beef cattle ranching in the Lake Okeechobee Basin. P. Bohlen (PI). South Florida Water Management District and Florida Department of Agriculture and Consumer Services, Contract No. C-13414. 2002-2003. $290,000.
23. Research-related operations expenses in support of research for beef cattle BMP project at MacArthur Agro-ecology Research Center. P. Bohlen and G. Lollis. Center for Natural Resources, University of Florida Institute of Food and Agricultural Sciences. 2001. $25,000.
24. Agro-ecosystem indicators of sustainability as affected by cattle density in ranch management systems. F. Roka (PI), P. Bohlen, J. Mullahey, J. Arthington, K. Campbell, S. Coleman, D. Graetz, R. McSorley, K. Portier, A. Steinman, G. Tanner and M. Williams (Co-

PIs). USDA-NRI Agricultural Systems Program, Award No. 2001-35211-10080. 2001-2004. $530,000.

25. Field station and marine laboratories: Classroom and laboratory improvements for Archbold Biological Station. H. M. Swain (PI), P. J. Bohlen, R. Bowman and E. Menges (Co-PIs). NSF FSML Program. 2000-2001. $125,848.
26. Influence of cattle grazing and land use on freshwater wetlands in grazing lands. P. Bohlen (PI), D. Graetz and A. Steinman (Co-PIs). USDA-NRI Ecosystems Program, Award No. 00-35101-9282. 2000-2002. $267,300.
27. Optimization of best management practices for beef cattle ranching in the Lake Okeechobee Basin—Part 2. J. Capece (PI), K. L. Campbell, D. A Graetz, K. M. Portier, P. Bohlen and H. Swain (Co-PIs). Contract No. G0231, Florida Department of Agriculture and Consumer Services, USEPA 319 Program. 2007-2009. $250,000.
28. Optimization of best management practices for beef cattle ranching in the Lake Okeechobee Basin. P. Bohlen (PI) and H. Swain (Co-PI). South Florida Water Management District, Contract No. C-8614. 1999-2001. $315,000.
29. Invasion of north temperate forests by exotic earthworms. P. Groffman (PI), P. Bohlen and T. Fahey (Co-PIs). NSF Ecosystems Program, Award No. DEB-9726869. 1998-2001. $700,000.
30. The role of earthworms in conservation and loss of carbon and nitrogen in agroecosystems. R. Parmelee (PI), C. Edwards, B. Stinner, P. Groffman (Co-PIs), P. Bohlen (co-author). National Science Foundation Ecosystems Program, Award No. DEB-9419727. 1995-1998. $640,000.

PRESENTATIONS

Invited talks, professional and public audiences (96)

2021 University of West Florida, Pensacola, FL, Nov. 5
2001 Pine Lily Chapter of the Florida Native Plant Society, online, Oct. 28
2001 OUTSIDE Sustainable Landscape Collaborative 2021 event, via Zoom, Oct. 21
2021 Central Florida Prescribed Fire Council Annual Meeting, via Zoom, Oct. 1.
2021 EPA Region 4 staff webinar on pollinator conservation, via MS Teams, Jun. 23.
2021 Florida Native Plant Society Annual Conference Keynote talk, via Whova, May 15.
2021 Legacy Pointe at UCF Senior Living community, via Zoom, Apr. 7.
2021 Seminole County Master Gardener's Expo 2021, via Zoom, Feb. 27.
2021 Valencia College Peace and Justice Institute, Conversation on Justice, via Zoom, Jan. 27
2020 Xerces Society Bee Campus USA Program, via Zoom, Nov. 12.
2020 Outside Sustainable Landscape Collaborative, via Zoom, Winter Park, FL, Oct. 22.
2020 Seminole County Master Gardener's meeting, via Zoom, Sanford, FL, May 28.
2020 Sierra Club May Monthly meeting, via Zoom, May 20.
2020 Outside Collaborative Webinar hosted by 1000 Friends of Florida. Apr. 24.
2019 UCF College of Science Distinguished Speaker Series, Orlando, FL, Jan. 23.
2019 Lake County Master Gardeners, UF-IFAS Extension Center, Tavares, FL, May 9.
2019 Seminole County Beekeepers Association, Sanford, FL, Jun 5.

2019 Paw Paw Chapter, Florida Native Plant Society, Daytona Beach, FL. Oct. 13.
2019 Learning Institute for Elders (LIFE) at UCF, Orlando, FL, Nov. 29
2018 Orlando Garden Club, Orlando, FL, Jan. 19.
2018 Knights for Marine and Wildlife Conservation, Orlando, FL, Apr. 5.
2018 Orange County Beekeepers Association, Orlando, FL, Nov. 15.
2017 Learning Institute for Elders (LIFE) at UCF, Orlando, FL Jan. 24.
2017 Seminole County Garden EXPO, Sanford, FL, Mar. 4.
2017 Cuplet Fern Chapter, Florida Native Plant Society, Sanford, FL, Jul. 10.
2017 Florida Native Plant Month Celebration, Leu Gardens, Orlando, FL, Oct. 3.
2016 Florida Native Plant Society Annual Meeting, Daytona Beach, FL, May 20.
2016 ASABE International Meeting Symposium, Orlando, FL, Jul. 18.
2015 Florida International University, Marine Sciences Seminar, Melbourne, FL, Feb. 11.
2015 Ecological Society of America Annual Meeting Ignite Session, Baltimore, MD, Aug. 13.
2015 Osceola County Master Gardener's Association, Kissimmee, FL, Sep. 9.
2015 American Physical Plant Association Campus Housing Meeting, Tampa, FL, Oct. 21.
2014 Professional Grounds Management Society Regional Meeting, Orlando, FL, Mar. 3.
2014 Sweetwater Oaks Garden Club, Longwood, FL, Mar. 10.
2014 ASABE International Meeting Symposium, Montreal, CA, July 15.
2014 Moveable Feast Social Club, Longwood, FL, Nov. 22.
2013 Winter Park Garden Club General Meeting, Orlando, FL, Feb. 13.
2013 ASABE International Meeting Symposium, Kansas City, MO, July 24.
2013 Soil Science Society of America Wetland Section Symposium, Nov. 4.
2012 9th INTECOL International Wetlands Conference, Orlando, FL, June 6.
2012 Ecological Society of America Annual Meeting Symposium, Portland, OR, Aug. 11.
2010 National Association of Conservation Districts Annual Meeting, Orlando, FL, Feb. 2.
2009 Thompson Rivers University, Kamloops, British Columbia, Sept. 24.
2008 Florida Audubon, St. Petersburg Chapter, St. Petersburg, FL, Jan 15.
2008 Society for Range Management Annual Meeting, Louisville, KY, Jan. 27.
2008 Greater Everglades Ecosystem Restoration Conference, Naples, FL, July 30.
2008 Greater Everglades Ecosystem Restoration Conference, Naples, FL, July 31.
2007 Ecological Society of America Annual Meeting Symposium, San Jose, CA, Aug 8.
2007 Joseph W. Jones Ecological Research Center, Newton, GA, Oct. 11.
2007 Cornell University, Biogeochemistry Seminar Series, Ithaca, NY, Oct. 26.
2007 Kansas State University, Manhattan, KS, Dec. 3.
2007 University of Florida, Center for Wetlands, Gainesville, FL, Dec. 5.
2006 University of Florida, Botany Department, Gainesville, FL, Feb 22.
2006 University of Florida, South Florida Ecosystems Course, Riverwoods, FL, May 19.
2006 Ecological Society of America Annual Meeting Symposium, Memphis, TN, Aug. 11.
2006 University of Central Florida Biology Dept., Orlando, FL, Oct. 19.
2006 National Grazing Lands Conservation Initiative Meeting, St. Louis, MO, Dec. 13.
2005 Certified Crop Advisors' Seminar, Sebring, FL, Mar. 15.
2005 9th International Symposium on Wetland Biogeochemistry, Baton Rouge, LA, Mar. 21.
2005 World Wildlife Fund Workshop, Washington, D.C. Apr. 14.

2005 University of Florida, Beef Cattle and Forage Workshop, Immokalee, FL, May 17.
2005 National GLCI Steering Committee Meeting and Tour, Lake Placid, FL, Sept. 8.
2005 University of Florida, Certified Crop Advisors' Seminar, Fort Pearce, FL, Oct. 12.
2004 Miami University, Department of Zoology, Oxford, OH, Feb. 23.
2004 USDA National State Resource Conservationist Conference, St. Louis, MO, March 22.
2004 FL Soil and Water Conservation Society Annual Meeting, Lake Placid, FL, Oct. 15.
2004 Annis Water Resources Institute, Grand Valley State Univ., Muskegon, MI, Oct. 21.
2003 Hendry County Extension Office Phosphorus Workshop, Labelle, FL, Feb. 11.
2003 Soil Ecology Society Biennial Meeting, Invited Plenary, Palm Springs, CA, May 12.
2002 Everglades Coalition Annual Meeting, Ft. Lauderdale, FL, Jan. 5.
2002 8th Annual Public Interest Environmental Law Conference, Gainesville, FL, Feb. 15.
2002 University of Florida, Center for Wetlands, Gainesville, FL, April 24.
2002 Florida Cattlemen's Association Annual Meeting. Marco Island, FL, June 21.
2002 University of Georgia, Institute of Ecology, Athens, GA, Oct. 18.
2000 Society for Range Management Soil Ecology Symposium, Boise, ID, Feb. 17.
2000 University of Florida, Gainesville, FL, Oct. 18.
2000 Soil Science Society of America Symposium, Minneapolis, MN, Nov. 7.
1999 University of Florida, Gainesville, FL, April 6.
1999 South Florida Community College, Sebring, FL, Oct. 6.
1998 Archbold Biological Station, Lake Placid, FL, March 5.
1998 Arizona State University, Tempe, AZ, April 9.
1998 University of Toledo, Toledo, OH, April 13.
1997 USDA-ARS Horticultural Research Lab, Orlando, FL, Sept. 22.
1996 University of Quebec at Montreal, Montreal, Canada, Feb. 20.
1996 University of Basel, Basel, Switzerland, June 27.
1996 Swiss Federal Institute of Technology, Zurich, Switzerland, Nov. 15.
1996 Natural Resource Ecology Laboratory, Ft. Collins, CO, Nov. 22.
1995 Ecological Society of America Symposium, Snowbird, UT.
1995 Illinois Natural History Survey, Champaign, IL, Dec. 4.
1995 Northern Global Change Program, New York, NY, Mar. 14.
1994 Fifth International Symposium on Earthworm Ecology, Columbus, OH.
1993 No-till Farmer's Association Meeting, Columbus, OH.
1993 Workshop on Earthworm Ecology and Biogeography in North America, Helen, GA.
1992 Ohio Ecological Food and Farming Association Annual Meeting, Wooster, OH.
1991 Ohio Ecological Food and Farming Association Annual Meeting, Wooster, OH.
1990 Permaculture Design Workshop, Loveland, OH.

Offered presentations

One hundred twenty-nine (129) presentations as principal or co-author at national and international scientific meetings, symposia, and other venues including: A Conference on Ecosystem Services; Archbold Biological Station Research Symposia; Agronomy Society of America Annual Meetings; American Association of Biological and Agricultural Engineers; American Association of Sustainability in Higher Education; American Ecological Engineering Society Annual Meeting; American Institute of Biological Sciences Annual Meeting; American

Ornithological Society Annual Conference; American Society of Agricultural and Biological Engineers Annual Meetings; American Society of Civil Engineers World Water and Environmental Resources Conference; American Society of Landscape Architects Florida Annual Conference; Association of Field Ornithologists/Wilson Ornithological Society Conference; 6th Symposium on Biogeochemistry of Wetlands; Ecological Society of America Annual Meetings; Florida Stormwater Association Winter Conference; Greater Everglades Ecosystem Restoration Conferences; International Conference on Sustainable Agricultural Systems; XI and XII International Colloquia on Soil Zoology; 5th, 6th and 7th International Symposia on Earthworm Ecology; 5th Annual Landscape Ecology Symposium; New York Metro-Forest Council Meeting; Nutrient Management in Agricultural Watersheds, a Wetlands Solution; Ohio Academy of Science Annual Meeting; 2nd and 4th University of Florida Water Institute Symposium; Society for Conservation Biology Annual Meetings; Society for Range Management 67th Annual Meeting; Society of Wetland Scientists; Soil Ecology Society Biennial Conferences; Soil and Water Conservation Society Annual Meeting; Soil Science Society of America Annual Meetings; Southern Association of Agricultural Scientists Annual Meeting; World Wildlife Fund Workshop.

TEACHING EXPERIENCE

Courses taught

2017 Honey Bee Biology and Beekeeping (ENY3571), 12-15 students, High-Impact Research-Intensive Course designation, spring semester, 2017-current.
2016 Introduction to Environmental Science (EVR1001, 220-275 students), Black Diamond General Education Program Class, fall semester, 2016-2019.
1997 Forest Ecology, Bard College, Grad. School of Environmental Studies.
1996 Ecosystem Ecology, Bard College, Grad. School of Environmental Studies.
1995 Instructor in the Education Program of the Institute of Ecosystem Studies.
1989 Teaching assistant, Animal Physiological Ecology (ZOO 553), Miami University.
1988 Introduction to Ecology (ZOO 332) (invited lectures), Miami University.
1988 Teaching assistant, Field Ecology (ZOO 333), Miami University.

Lectures given in courses

2007 Agroecology, Florida International University (2007-2009).
2007 Ecology of Grassland Systems, multi-university traveling course.
2006 South Florida Ecosystems, University of Florida.
2006 Sustainable Agriculture, Florida International University.
1994 Ecosystem Ecology, Bard College.
1991 Agroecology, the Ohio State University.

Extension presentations

2017 Using native plants in urban landscapes, Landscape U, Orange Co. Extension Education Center, UF/IFAS, Dec. 5.

Other education program activities

- Collaborator on Agroecology Certificate Program at Florida International University targeting minority undergraduate and graduate students, and high school students and

teachers: field workshop organizer, lecturer, and program advisor.
- Helped develop public educational eco-tours on the ecology and conservation value of Florida cattle ranches.
- Helped develop Archbold Biological Station web-based virtual tour for teaching middle school students about ranch ecology, conservations, and agricultural production.
- Faculty advisor to Urban Ecological Methods class at UCF (BSC 4861L).

ADVISING EXPERIENCE

Postdoctoral advisees
Elizabeth Boughton, 2010.
Stanley Gathumbi, 2000-2005.

Graduate students
1. Alessandra Pandolfi, PhD, University of Central Florida, 2021-current.
2. David Sherer, M.S., University of Central Florida, 2019.
3. Alicia Huber, M.S., University of Central Florida, 2017.
4. Lindsay Skovira, M.S., Biology, University of Central Florida, 2016.
5. Pam Ito, M.S., Bard College, 1999.

Graduate student committees
1. Brooke Moffis, PhD., University of Florida, current.
2. Anthony Mirabito, PhD., University of Central Florida, current.
3. Allison Malay, PhD., University of Central Florida, current.
4. Paul Boudreau, M.S., University of Central Florida, current.
5. Sarah Parker, M.S., University of Central Florida, 2021.
6. Havalend Steinmuller, PhD., University of Central Florida, 2019.
7. Elizabeth Becker, PhD., University of Central Florida, no degree.
8. Debapi Ghosh, PhD., University of Central Florida, 2016.
9. Sanaz Imen, PhD., University of Central Florida, 2015.
10. Angelica Engle. M.S., University of Florida, 2015.
11. Jamie Jones, M.S., University of Central Florida, 2013.
12. Zachary Marimon, M.S., University of Central Florida, 2013.
13. Jennifer Manis, M.S., University of Central Florida, 2013.
14. Jason Neumann, M.S., University of Florida, 2011.
15. Katie Windes, M.S., University of Central Florida, 2010.
16. Elizabeth Boughton, PhD., University of Central Florida, 2009.
17. Natalie Balcer, M.S., University of Florida, 2006.
18. Wolfgang Prein, M.S., FH Joanneum, Austria, 2005.
19. Jan Kokemor, M.S., University of Bonn, Germany, 2004.
20. Carla M. Sperry, M.S., University of Florida, 2004.
21. Nicola Clegg, M.S., Stirling University, Edinburgh, Scotland, 2001.

Undergraduate/post-baccalaureate student mentoring (48 research, 16 leadership)
National Science Foundation Research Experiences for Undergraduates Program (4 total):

Julia Long, Ohio State Univ., 1993; Ellis Still, Rutgers Univ., 1995; Heather Kiewig, 1996, Carleton College; Amy Burtelow, Rutgers Univ., 1997.

Archbold Biological Station Student Research Trainees, 1998-2010 (24 total, chronological):
Laura Spangler, Emory Univ.; Rachel Butzler, Penn State Univ.; Tim Dickson, St. Olaf College; Wilhelmina Tsang, Brandeis Univ.; Christine Edwards, Univ. of Colorado; Julie Golod, Michigan State Univ.; Nicola Clegg, Stirling Univ., Edinburgh Scotland; Julie Conklin, Rutgers Univ.; Alyssa Zimman, Cornell College; Robin Rossmanith, Southern Illinois Univ.; Jonathan Hogarh, Aalborg Univ., Denmark; Laura Calabrese, Hobart and William Smith Colleges; Brad Christoffersen, Southern Nazarene University; Pedro Priante, Univ. Federal de Mato Grosso, Brazil; Brook Traynham, Emory Univ.; Jan Kokemor, Univ. of Bonn, Germany; Wolfgang Prein, FH Joanneum, Austria; Jenna Smith, New College; Elizabeth Boughton, Univ. Florida; Andrew Tweel, Colorado College; Katie Windes, Univ. of Indiana; Rob Morrison, Kalamazoo College; Annie Weiler, Univ. of Minnesota; Chris Wilson, New College.

Undergraduate Research Mentoring at UCF, 2010-current (20 total):
Rachel King, 2010-2011; Sasha Tittel[*], 2011-2012; Linh Anh Cat[*†], 2011-2013; Danielle Lang, 2011-2013; Marisa Zimmerman[*], 2012-2014; Melissa Paduani[*], 2013-2014; Jessica Sandoval[*†], 2014-2016; Corine Faehn[*], 2015-2016; Yvelande Raymond[*†], 2016-2017; Matthew Rudolph, 2017; Shiala Naranjo**, 2017-2019; Jessica Jowais[*], 2017-2019; Allison Malay*, 2018-2019; Elise Decuba, 2018-2019*; Michelle Winter, 2019; Ghada Swissi, 2019; Veronica Suarez, 2020-2021; Caroline Ibarra, 2020-current; Alexander Gregory**[‡], 2020-current. Tuesday Piper (2021-current).
[*]presented posters at the UCF Showcase for Undergraduate Research Excellence
**awarded a Student research Grant from Office of Undergraduate Research
[†]won an award at the UCF Showcase for Undergraduate Research Excellence
[‡]awarded a Summer Undergraduate Research Fellowship from Office of Undergraduate Research

Undergraduate Mentor for UCF REU Site Program: Conservation, Restoration and Communication (L. Walters, PI; K. Mansfield, Co-PI) (starts in 2022)

Undergraduate Students in UCF Arboretum's Learning-by-Leading™ Program (22 total):
Student co-coordinators (5 total)
Madison Schmidt, 2019-2020; Rachel Gutner, 2019-current; Veronica Renzette, 2020-2021; June Davison, 2021-current; Ethan Hudson, 2021-current.
Student interns (17 total)
Ashton Eviker (Fall 2019); Courtney Lewis (Fall 2019); Coral Robson (Fall 2019); Nathan Leemis (Spring, Fall 2020, Spring 2021), Courtney Lewis (Spring 2020), Veronica Renzette (Spring 2020), Coral Robson (Spring 2020); June Davison (Fall 2020-Spring 2021); Samarah Martin (Fall 2020-Spring 2021); Rebekah May (Fall 2020); Joshua Yother (Fall 2020); Margaret Smartt (Spring 2021); Kara Wilson (Spring, Fall 2021); Andrea Cabezas (Spring, Fall 2021); Fabiana Antezana (Fall 2021); Willow Hearne (Fall 2021); Stephanie Morris (Fall 2021).

UNIVERSITY SERVICE AND COMMITTEES

- Foundation Co-Lead for the 2021-2022 Knowledge Application Theme of the Integrated General Education Program Faculty Leadership Team
- Committee to develop promotion and tenure guidelines for the newly created department of Interdisciplinary Studies within the College of Undergraduate Studies 2020.
- Dept of Biology Steering Committee 2019.
- Search Committee Chair, Integrated Plant Biologist, 2018.
- UCF Public Art Master Plan Committee Member, 2015-current.
- Search Committee Chair, Plant Physiological Ecologist, 2016.
- Campus Sustainability Steering Committee Member, 2015-current.
- University Master Planning Committee Chair, 2014-current.
- Biology representative to Environmental Chemistry Search Committee 2014.
- Responsible authority for conservation elements of the 2014 UCF Campus Master Plan.
- Campus Landscape Master Plan, 2013-16. Initiated and led development of first UCF campus landscape master plan in conjunction with Bellomo-Herbert, Landscape Architects, and Carol R. Johnson Associates.
- Facilities and Space Committee Chair, Dept. of Biology, 2018-current.
- Football Executive Committee, 2012-current.
- Winter Park Garden Club Scholarship Committee Chair, 2010-current.
- Facilities and Space Committee, Department of Biology, 2010-current.
- Design and construction committees, representing landscape, hardscape and site development plans for major UCF campus construction projects: Academic Villages II, Bennett Building Renovation, Classroom II, District Energy Plant IV, CREOL Expansion Phase II, Global UCF, Greek Park and Greek Life Center, Interdisciplinary Research and Incubator, John C. Hitt Library Expansion, Libra Parking Garage, Libra Road Widening, Parking Garage H, Parking Garage C Expansion, Starbucks, Student Health Center Expansion, Trevor Colbourn Hall, Wayne Densch Center for Student Athlete Leadership.
- Natural Lands Committee Chair, Dept. of Biology, 2010-2014.
- University Master Planning Committee, voting member, 2010-current.

ADMINISTRATIVE EXPERIENCE

Director of UCF Arboretum

- Direct an academic administrative unit within the College of Sciences to promote interaction with nature; demonstrate excellence in public horticulture, conservation, and natural resource management; and provide volunteer and leadership training opportunities for a diverse student body.
- Promote a sense of community and human well-being through nature programming.
- Develop and track research and educational use of the UCF campus as an outdoor living laboratory.
- Provide horticultural and landscape design oversight for the university landscape.
- Establish and build a philanthropic giving program to support Arboretum programs.
- Improve facilities and site planning of core Arboretum program areas.

Arboretum Accomplishments

- Created new vision and mission for LNR and the Arboretum programs (www.arboretum.ucf.edu).
- Increased student credit hours (SCH) offered through the Arboretum by 5-fold (currently ~45 per semester) by increasing enrollment of students in internships, independent research, and classes offered by Arboretum staff.
- Oversaw planning and construction of a 1,000 ft^2 state-of-the-art multi-use greenhouse to support Arboretum programs and teaching programs in the Biology Department.
- Reorganized the staff structure at the UCF Arboretum, establishing the positions of Program Director and Coordinator, in order to meet the demands of the expanding program.
- More than doubled volunteer participation in Arboretum programs to include over 9,000 hours of volunteering and over 1,200 volunteers per year.
- Increased participation of students, faculty and staff, and visitors in Arboretum sponsored events by 5-fold.
- Expanded the Arboretum community garden, increasing internship and volunteer opportunities, and established partnerships with other community programs focused on urban gardening and agriculture.
- Initiated an effort with the UCF Foundation staff to establish a tradition of philanthropic giving to support Arboretum programs.
- Collaborated with digital media faculty member Maria Harrington, to create a cutting-edge educational website and virtual reality program that advances learning about and appreciation of biodiversity in Florida pine flatwoods ecosystems.
- Implemented the Learning by Leading™ program, a student leadership development program developed by the University of California, Davis, Arboretum.
- Developed a master plan in 2019 for the historic core Arboretum are that was destroyed by hurricanes in 2004.

University of Central Florida
Director of Landscape and Natural Resources

- Developed and maintained an outdoor environment that contributes to a sense of place, advances learning and reflects a commitment to stewardship of human, financial and natural resources.
- Oversaw 65-70 employees and combined annual operating budgets of about $4.4 million.
- Oversaw planning, design and construction of $500-700K annually of landscape installations associated with major construction projects and renovations.
- Direct landscape and grounds, natural areas, and green infrastructure for the entire 1,400-acre main campus, which includes nearly 850 acres of built environment and manicured landscapes, and about 830 acres of natural land, including 327 acres of wetland conservation easement, and for four satellite campuses.
- Helped guide master planning of the UCF main campus.
- Implemented university sustainability practices and goals into campus landscape operations.
- Developed standards and specifications for campus landscape design and construction practices; developed standard operating procedures for campus landscape maintenance.
- Oversaw the selection and oversight of landscape contractors.

- Administered the campus National Pollution Discharge and Elimination system stormwater permit.

LNR Accomplishments

- Initiated major improvements to the aesthetics and horticultural richness of the campus environment.
- Reorganized the leadership team of Landscape and Natural Resources and created leadership positions for each of the main departmental areas: landscape design and installation, landscape maintenance and operations, and natural resource management.
- Developed a university landscape design team; hired a campus landscape architect and created a landscape installation team for to implement minor campus enhancements.
- Developed a campus arbor team to oversee management of the university tree canopy and natural lands; this team was recognized as the 2017 Outstanding Urban Forestry Program in Florida by the Florida Urban Forestry Council—the first university forestry program in Florida to be so recognized.
- Improved campus water sustainability by increasing the amount of campus landscape irrigated with reclaimed water from 60% to 100%.
- Became the second university in Florida to be designated as a Tree Campus USA through the Arbor Foundation.
- Represented UCF on landscape design, development and construction committees, for major UCF campus construction projects, including: Academic Villages II, Bennett Building Renovation, Classroom II, District Energy Plant IV, CREOL Expansion Phase II, Global UCF, Greek Park and Greek Life Center, Interdisciplinary Research and Incubator, John C. Hitt Library Expansion, Libra Parking Garage, Libra Road Widening, Parking Garage H, Parking Garage C Expansion and Bus Loop, Starbucks, Student Health Center Expansion, Trevor Colbourn Hall, Wayne Densch Center for Student Athlete Leadership.
- Established a trailblazing prescribed fire program recognized statewide for success in preserving native biodiversity and restoring native habitats at the wild-urban interface.
- Initiated and led development of UCF's first Campus Landscape Master Plan, completed in 2016 in conjunction with Bellomo-Herbert, Landscape Architects, and Carol R. Johnson Associates.
- Served on the UCF Public Art Master Plan Oversight Committee from 2015-2016, and provided input to master plan development.
- Became the first university in Florida to be designated as a Bee Campus USA through the Xerces Society, committing the university to pollinator conservation, research, education, and outreach.
- Established a marked trail network of over 13 miles of nature trails through the natural areas on campus.

Archbold Biological Station Agro-ecology Program (1998-2010).

- Directed a nationally recognized research program in agroecology, conservation and restoration, based on multi-institutional and multi-disciplinary collaborations and diverse funding sources (www.maerc.org).
- Developed and supported research programs focused on: ecology and conservation on Florida cattle ranches; non-point source nutrient runoff from pastureland; controls on nutrient

cycling in wetland and upland ecosystems; wetland ecology and biogeochemistry; and assessing ecosystem services in agricultural lands.
- Managed several large-scale multi-disciplinary research projects addressed ecological and economic sustainability of subtropical cattle ranches.
- Fostered and sustained formal institutional collaborations with multiple state and federal agencies (Florida Dept. of Agriculture and Consumer Services, South Florida Water Management District, Florida Dept. of Environmental Protection, USDA-ARS, USDA-NRCS), universities (Univ. of Florida, Univ. of Central Florida, Florida International Univ.), environmental NGOs (World Wildlife Fund, The Nature Conservancy, Audubon Society) and agricultural producers (Florida Cattlemen's Association and individual ranchers).
- Administered research infrastructure at a field station, including field labs and instrumentation, meteorological stations, environmental sensor networks, and data management systems.
- Hired and trained over 20 research staff, and mentoring 24 post-baccalaureate research trainees on independent research projects. Annual budgets included approximately $190,000 base funding and $250,000-$400,000 in external funding.
- Developed and participated in education and outreach programs related to the ecology, environmental impact, and sustainability of Florida ranches and ranchlands.

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science
American Public Gardens Association
Ecological Society of America (life member, Senior Certified Ecologist)
Society for Conservation Biology
Society of Wetland Scientists (life member)

PROFESSIONAL SERVICE

Editorial boards
- *Advances in Agroecology,* CRC Press, Taylor and Francis Group, 2009-2014.
- *Applied Soil Ecology*, 1996-2001.
- *Bulletin of Environmental Contamination and Toxicology*, 1994-2000.
- *Ecology and Ecological Monographs*, 2001-2005.
- *Frontiers in Ecology and the Environment*, 2007-2019.
- *Rangeland Ecology and Management,* 2008-2010.
- Guest Editor, *Applied Soil Ecology* Special Issue on Biological Invasions, 2003-2004.

Symposium organizer
- Agronomy Society of America, 2006.
- Ecological Society of American Annual Meeting, 2006.
- Southern Association of Agricultural Scientists, Orlando, FL, 2002.
- Co-chair, 6th International Symposium on Earthworm Ecology, Vigo, Spain, 1998.

National or EU review panels

- BiodivERsA and Water JPI Joint European Call, Conservation and Restoration of Degraded Ecosystems and Their Biodiversity, Including a Focus on Aquatic Systems. Sept 2021.
- BiodivERsA 3 Pan-European Biodiversity and Ecosystem Services Program, April 2016, Paris, France.
- USDA-NRI Managed Ecosystems Program, Winter 2007, Washington, D.C.
- National Science Foundation Ecology Program, Spring 2000, 2002, Washington, D.C.
- National Science Foundation Doctoral Dissertation Improvement Awards Program 1999, Washington, D.C.

Proposal reviewer

- National Science Foundation, Ecology/Ecosystem/LTREB Programs, 1999, 2001-2009, 2012.
- Leopold Center for Sustainable Agriculture, Competitive Grants Program, 2009.
- Reviewer of book proposal on biofuels, CRC Press, Taylor and Francis Group, 2009.
- USDA-NRI Competitive Grants Program, 2005.
- Natural Sciences and Engineering Research Council of Canada, Discovery Grant Program Reviewer, 2004.
- Marsden Fund, The Royal Society of New Zealand, 1998, 2000, 2001.
- Natural Environmental Research Council Proposal, United Kingdom, 1998.

Offices held

- Co-Chair, Environmental Sustainability Criteria Development Subcommittee, National Sustainable Agriculture Standard Development, Leonardo Academy, 2009-2010.
- Secretary, Soil Ecology Society, 2001-2003.
- Secretary of the Soil Ecology Section of the Ecological Society of America, 1995-1997.

Committees and review teams

- Organizing Committee, OUTSIDE: Sustainable Landscape Collaborative 2020.
- Global Soil Biodiversity Assessment, Steering Committee, Global Soil Biodiversity Secretariat, Ft. Collins, CO, Feb. 26-28, 2013.
- USDA-ARS Site Review Team, Subtropical Agricultural Research Station, Brooksville, FL, May 17-18, 2004; Program review participant, Nov. 12, 2009.
- Wetlands Enhancement Advisory Committee, University of Florida, 2003-2005.
- Ecological Society of America, JSTOR Journal Selection Committee, 2003.
- Heinz Center *State of the Nation's Ecosystems* Project Reviewer, 2001.
- Search Committee, USDA-ARS Subtropical Agricultural Research Station, Brooksville, FL, 2000.
- Nominating Committee, International Soil Ecology Society, 1997.

Invited workshop participant, session chair

- Co-organizer of OUTSIDE Sustainable Landscape Collaborative, live-stream panel on implementing sustainable landscape projects, Oct. 21, 2021.
- Invited Participant, Hollings Center for International Dialogue, *Smart and Sustainable Cities: Understanding How to Build the Modern City*, Marrakesh, Morocco, Oct. 23-27, 2019.

- Invited Participant, USDA-ARS Rangeland, Pasture and Forages National Program Workshop, 1999.
- Invited workshop moderator, Ecological Society of America Annual Meeting, 1996.
- Contributed paper session chair, Ecological Society of America Annual Meeting, 1996.

Reviewer for professional journals

- *Applied Soil Ecology*, *Biogeochemistry*, *Biological Conservation*, *Biological Invasions*, *Bulletin of Environmental Contamination and Toxicology*, *Canadian Journal of Forest Research*, *Ecological Applications*, *Ecological Monographs*, *Ecology*, *Ecoscience*, *Ecosystems*, *Environmental Engineering*, *Frontiers of Ecology and the Environment*, *Functional Ecology*, *Ecology Letters*, *Geoderma*, *Global Change Biology*, *Nature*, *Northeastern Naturalist*, *Oecologia*, *Oikos*, *Rangeland Ecology and Management, Science, Soil Biology & Biochemistry, Soil Science Society of America Journal, Southeastern naturalist; Tropical Ecology, Urban Ecosystems, Wetlands.*
- Invited book reviews: *Applied Soil Ecology*, *Ecology, Soil Biology & Biochemistry*.

Other service

- SEEDS Program Mentor, Ecological Society of America Annual Meeting, 1999.