

## **CURRICULUM VITAE: DAVID JOHN GIBSON**

**Gibson, David John, Ph.D., FRSB**

**Emeritus Professor**

**University Distinguished Scholar**

School of Biological Sciences

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### **Education:**

B.Sc. Upper Second Class Honours in Botany with subsidiary Geology. Univ. of Reading, UK, 1979

M.S. Botany, Univ. of Oklahoma, USA, 1981. (Thesis advisor: P.G. Risser)

Ph.D. University of Wales, Bangor, UK, 1985. (Thesis advisor: P. Greig-Smith)

### **Awards:**

Shawnee Resource Conservation & Development. Partner Organization of the Year 2019.

River to River Cooperative Weed Management Area. Award for Excellence in Addressing Invasive Species in Southern Illinois. 2017.

Sigma Xi, Outstanding Undergraduate Faculty Mentor Award, 2014.

University Distinguished Scholar, SIUC, 2008: see: <https://itunes.apple.com/us/itunes-u/outstanding-scholar-2008-group/id390532000?mt=10>

Outstanding Faculty Scholar, SIUC Faculty Senate, 2008.

Sigma Xi, Kaplan Research Award, 2008.

Outstanding Researcher. SIUC, College of Science, 2006.

### **Professional Affiliations:**

Fellow and Chartered Biologist, Royal Society of Biology, London (supersedes former Institute of Biology from 1<sup>st</sup> October, 2009).

Fellow, Institute of Biology, London. Chartered Biologist with the Institute of Biology. Elected Member, 1984; elected Fellow, 1999.

Departmental Research Fellow, University of Oxford, UK, 2000-2002.

Sigma Xi, elected Member, 1993.

NSF Konza Prairie, Long-Term Ecological Research Group, 1986-ongoing

British Ecological Society, Journal of Ecology: Associate Editor 1992-1998; Senior Editor 1998-2013, 2019-2022, Executive Editor 2014-2019.

Ecological Society of America, member 1980 - ongoing

Institute for Coastal & Estuarine Research, Univ. West Florida 1989-1994.

Journal of Vegetation Science, Editorial Board Member. 1997-ongoing

Torrey Botanical Club: Subject Matter Editor 1991-1996.

## Professional Experience:

2021- Senior Scientist, Creekbank Associates. <https://www.creekbankassociates.com/#home>  
 2017 - Editor, Ecology Series, HS Talks. Audiovisual trainings.  
<https://hstalks.com/playlist/1022/ecology/?biosci>.  
 2011- Editor-in-Chief. Oxford Bibliographies Online, Ecology.  
 2000-2023 Professor, Southern Illinois University  
 1998-2022 Senior Editor, Journal of Ecology (Executive Editor 2010-2020)  
 1994-2000 Associate Professor, Southern Illinois University  
 1992-94 Assistant Professor, Southern Illinois University  
 1988-92 Assistant Professor, University of West Florida  
 1987-88 Assistant Scientist, Kansas State University. Participant in the NSF-LTER program  
 1987 Staff Scientist, International Satellite Land Surface Climatology Project, Konza Prairie.  
 1986 Research Associate (LTER Program), Kansas State University  
 1985 Post-doctoral Research Fellow, Division of Pinelands Research, Rutgers University.  
 1980 Research Assistant, Oklahoma Biological Survey, University of Oklahoma.  
 1978 Student Summer Research Fellowship, Royal Botanic Gardens Kew, Wakehurst Place, UK.

## Teaching Experience:

1992- Southern Illinois University: Ecology, Botany, Environmental Issues, Field Ecology, Grasslands Ecology (graduate), Forensic Botany, Plant Population Ecology (graduate), Ecology seminar (graduate), Ecological and Organismic Biology, Introduction to Research (graduate seminar).  
 1988-92 University of West Florida: Courses taught: General Botany, Introductory Biology (Lab), Coastal Plant Communities (graduate seminar), Palaeobiology (graduate seminar), Plant Ecology, Plant Taxonomy & Evolution, Quantitative Ecology (graduate), Special Methods in Teaching Science, Student Teaching.  
 1987 Fundamentals of Ecology, Kansas State University.  
 Assisted T. R. Seastedt, course instructor.  
 1981-84 Demonstrator, School of Plant Biology, University of Wales.  
 1979-81 Teaching Assistant, Department of Botany/Microbiology, University of Oklahoma.

## Post-doctoral Mentoring:

Dr. Katherine Kantz. SIUC, 1997-1998. NSF Long-Term Field Studies project.  
 Dr. Gouyong Li. 2018-2019. Visitor from Hunan University, China.  
 Dr. Qizhen Li. 2019-2020. Visitor from Central South University of Forestry and Technology, China.  
 Dr. Renee Lopez-Swails. 2019-2023. River Region Noyce Master Teachers Program, SIUC.

**Graduate Students (\* Gibson = major advisor/co-advisor [n=42]; SIUC Department of Plant Biology unless stated otherwise; § recipient of James E. Ozment Achievement Award):**

**MS students:**

1. Abbott, Matthew. 2012 Effects of experimental storm surge and sedimentation on Pitcher plants (*Sarracenia purpurea*) and associated assemblages in a coastal pine savanna. M.S SIUC.
2. \*§ Adams, E. D. 1999. Vegetative analysis and examination of beta diversity at Burke Branch and Ozark Hill Prairies Research Natural Areas in the Shawnee National Forest, Illinois. M.S SIUC.
3. Akanil, Nuket. 1996. Leaf litter decomposition along the Porsuk River, Eskisehir, Turkey. M.S. SIUC.
4. \*Alwerdt, Jessica. 2003. Evaluating the effects of intraspecific competition in *Arabidopsis thaliana* L. ecotype Columbia and its mutants tmm1-1 and sdd1-2 M.S. SIUC. Co-advised with Andrew Wood.
5. \*Barfknecht, David. 2018. Taxonomic and phylogenetic diversity of acid seep springs following biotic and abiotic disturbance. M.S. SIUC.
6. \* Bergquist, Kiersten. 2020. Ecosystem functioning in restored grassland as influenced by ecotypic variation, precipitation, and biodiversity. M.S. SIUC. Co-advised with Dr. S. Baer.
7. \*Beyerl, Tammie. 2001. Habitat and life history characteristics of *Dioscorea oppositifolia*, an invasive exotic plant in southern Illinois. M.S. SIUC.
8. Bhattacharyya, Sumita. 1999. An evaluation of an inquiry based field laboratory. M.S. SIUC.
9. \*Bittner, Robert Todd. 1995. The demography and distribution of a rare grass: *Calamagrostis porteri* ssp. *insperata* in Southern Illinois. M.S. SIUC.
10. Boyer, James. 1995. Reexamination of *Eospermatopteris eriana* from the Upper Middle Devonian (=Givetian) Flora at Gilboa, New York.M.S. SIUC.
11. Bowman, Sarah E. 2013. Mature Cabernet Franc vine and groundcover ecosystem response to vineyard aisle managed cover crops. M.S. SIUC.
12. \*§ Brandon, Alice. 2000. The effects of *Lespedeza cuneata*, an introduced species, on a old-field plant community. M.S. SIUC.
13. Bryan, Casey. 2020. MS SIUC.
14. Burkett, Carmen. 2023. Assessing the efficacy of Lepidopterans as pollinators in a Midwest pollination network. M.S. SIUC.
15. \*Campbell, Jonathan E. 1996. Effect of exotic seeds transported via horse dung on the vegetative composition of trails in southern Illinois. M.S. SIUC.
16. Campbell, Ryan. 2009. Variation in benefit from arbuscular mycorrhizal fungal colonization within cultivars and non-cultivars of *Andropogon gerardii* and *Sorghastrum nutans*. M.S. SIUC.
17. Delfeld, Brad. 2020. MS student.
18. \*Donatelli, Juliette. 2013. Forage quality of *Andropogon gerardii* across a precipitation gradient. M.S. SIUC.
19. Elsenheimer, Theresa. 1994. The effects of 14 years of biennial spring burning on above ground biomass and woody plant invasion in four Alexander County, Illinois Hill Prairies. M.S. SIUC.
20. Foster, Kari. 2004. Population dynamics and habitat analysis of a rare plant, *Trifolium reflexum*, in the northern portion of its range. M.S. SIUC.
21. Garrie, Kory. 2018. Prescribed fire effects on the invasive species *Achyranthes japonica* in southern Illinois. M.S. SIUC, forestry.
22. Goad, Rachel. 2012. Response of regional sources of tallgrass prairie species to climate and soil microbial communities. M.S. SIUC.
23. Hacker, Molly. 2018. Assessing seed bank contribution to landward expansion of coastal wetland communities and responses to fire. SIUC MS.

24. Hall, Yvonne. 1995. Stand and crown architecture characteristics of mature ponderosa pine forests in Colorado. M.S. SIUC.
25. \*Hansen, Michael. 2009. Is ecological restoration successful? An assessment of a prairie restoration project in northern Illinois. M.S. SIUC.
26. Harris, P.T. 2014. The role of deer browsing on plant community development and ecosystem functioning during tallgrass prairie restoration. M.S. SIUC.
27. \* Hickam, Erin. 1998. Variation of *Neotyphodium coenophialum* in *Festuca arundinacea* as influenced by plant age and nitrogen fertilization level. M.S. Biological Sciences (co-chair with J.A.Newman, Zoology).
28. Hickman, Andrea. 1997. The effect of elevated carbon dioxide on transmission of a barley yellow dwarf virus by to tall fescue (*Festuca arundinacea* Schreb.) by the bird cherry-oat aphid *Rhopalosiphum padi* L. M.S. Dept. of Zoology, SIUC.
29. \*Hudgens, Faith. 2021. An assessment of stream quality in relation to population health of *Plantago cordata*. M.S. School of Biological Sciences, Plant Biology, SIUC.
30. \*Inczauskis, Jason, R. 2011. Roadsides as corridors of exotic plant species invasion in southern Illinois, USA. M.S. SIUC. Co-advisee with Loretta Battaglia.
31. Johnson, M.A. 1998. The effect of local habitat variability on the growth, reproduction and morphology of *Matelea obliqua* (Jacq.) Woodson. M.S. SIUC.
32. Korchecki, K. 2004. Occurrence of *Celastrus orbiculatus* in forest ecosystems of southern Illinois M.S. Dept. of Geography, SIUC.
33. Koropchak, Sara. 2010. *Carex aquatilis* as a pioneer species for boreal wetland reclamation in northern Alberta. M.S. SIUC.
34. Kovacs, R.L. 1995. *Syzygites megalocarpus* (Mucoraceae, Mucorales, Zygomycetes) and its host-parasite association in the contiguous United States. M.S. SIUC.
35. \*Lambert, A.M. 2008. Physiology of dominant grasses in prairie restoration: the effect of population seed source on plant performance, community structure, and ecosystem function. M.S. SIUC. Co-advisee with Sara Baer.
36. Lorenz, Melina. 1999. Feeding preferences of *Rhopalosiphum padi* (L) on endophyte-infected and endophyte-free tall fescue (*Festuca arundinacea* Schreber) and the effect of elevated carbon. M.S., Dept. of Zoology, SIUC.
37. \* Martin, Elaine Luna. 1992. Patterns of genetic diversity in the rare mint *Conradina glabra* and its nearest relative *C. canescens*. M.S. UWF.
38. \* Martinez, K. A. 2014. C<sub>3</sub> Grass seedling invasibility and secondary successional trends in an old field in Southern Illinois. MS. SIUC.
39. Mathis, Marilyn. 1996. Herbivory and vegetation dynamics in coal slurry ponds reclaimed as wetlands. M.S. thesis, SIUC.
40. \*McCall, Robin K. 1995. Microclimatic influence on spatial heterogeneity and photosynthesis in *Sorghastrum nutans* (L.) Nash. and *Helianthus divaricatus* L. on southern Illinois loess hill prairies. M.S. SIUC.
41. McCoy, Roger A. 1997. Vegetation analysis and the effects of controlled fire at Atwood Ridge Research Natural Area. M.S. thesis, SIUC.
42. McLane, Craig. 2009. MS SIUC.
43. \* Medvecz, Erin. 2017. Resisting invasion: Grassland plant responses to an invasive legume, *Lespedeza cuneata*. MS SIUC.
44. Murphy, Gwen. 2020. Habitat preferences of Gulf Coast fiddler crabs and responses of plant and soil characteristics to their burrowing. MS SIUC.
45. \*Neal, T. 2018. Comparison of populations of *Achyranthes japonica* in the Ohio River valley. MS SIUC.

46. Pande, Archana. 2005. Habitat modeling to assess the risk of invasion by *Celastrus orbiculatus* on public lands in southern Illinois. M.S. SIUC, Dept. of Geography.
47. Perkins, Penny. 2002. The change in three Ozark hill prairies since cessation of management in 1989. M.S., Department of Forestry, SIUC.
48. Rastogi, A. 2018. Environmental impacts upon Arabidopsis: the role of DREBs. M.S. SIUC.
49. \*Reed, Lewis. 2010. Competitive equivalence of cultivar and non-cultivar dominant grasses in an experimental restoration. M.S.SIUC. Co-advisee with Sara Baer.
50. \*Rumpa, M.H. 2017. Effect of PPO-inhibiting herbicides on male-to-female sex ratios in *Amaranthus palmeri*. M.S. SIUC. Co-advised with Dr. K.Gage.
51. Saunders, N.E. 2005. Reproductive biology and population genetics of *Abronia ammophila* (Nyctaginaceae), and phylogenetic analysis of the *A. ammophila* species complex. M.S. SIUC.
52. \*Schwartz, Lauren, M. 2011. The competitive response of *Panicum virgatum* cultivars to non-native invasive species in southern Illinois. M.S.SIUC.
53. Seaton, Nicholas. 2020. The effect of deer browse on *Achyranthes japonica*. M.S. SIUC.
54. Shimp, Jody P. 1996. Vegetation analysis of three Research Natural Areas on the Shawnee National Forest: Barker Bluff, Dennison Hollow and Panther Hollow. M.S. SIUC.
55. Shirley, Laura J. 2006. Fifty years of vegetation change in estuarine coastal transitions across the northern Gulf of Mexico. MS SIUC.
56. \*Shupert, Lindsay. 2016. Integrative management of *Lespedeza cuneata* in prairie restorations. M.S. SIUC.
57. Singer, Steve. 2010. MS, SIUC. Department of Geography.
58. \* § Skeel, Virginia A. 1995. Environmental effects on competition: Leaf gas exchange and production of *Sorghastrum nutans* (L.) Nash. on two reclaimed strip mines and a railroad prairie. M.S. SIUC.
59. \*Smith, Katie M. 2013. Invasion and management of *Achyranthes japonica* in a southern Illinois wetland. M.S. SIUC.
60. Soley, Nathan. 2013. The reproductive biology of *Eleagnus umbellata* (Autumn olive): breeding system, pollinators, and implications for invasive spread. M.S. SIUC.
61. \*Spyreas, Greg. 2000. Community diversity and endophyte infection levels in the genus *Festuca*. M.S. SIUC.
62. Stork, Emily. 2011. Invasiveness and invasibility in the Dolomite prairie plant community. M.S. SIUC.
63. Suchecki, Paul. 1999. Vegetation analysis of LaRue-Pine Hills/Otter Pond Research Natural Area in the Shawnee National Forest. M.S. SIUC.
64. Suchecki, Sharon, R. 1998. Restoration of a limestone glade and former barrens at Fults Hill Prairie Nature Preserve in southwestern Illinois. M.S. SIUC.
65. Tate, Anthony. 2011. Short-term response to experimental storm surge and wrack application across an estuarine gradient in northwest Florida. M.S. SIUC.
66. Taylor, Jonathan. 1995. Litter decomposition in coal slurry ponds. M.S. SIUC.
67. Therrien, J.P. 1996. The systematics of *Porella* L.: The *Porella platyphylla* (L.) Pfeiff. and *P. platyphylloidea* (Schwein.) Lindb. species complex. M.S. SIUC.
68. \*Thomas, J. 2004. Dispersal of the invasive *Dioscorea oppositifolia* L. along a tributary of Drury Creek in Giant City State Park Southern Illinois. M.S. SIUC. Co-advisee with Beth Middleton.
69. Trojnar, Aimee. 2003. Morphometric analysis of archaeological maize from the Casma Valley, Peru. M.S. SIUC.
70. \*Urban, Jared. 2009. Niche and propagule limitation in a southern Illinois old-field. M.S. SIUC..
71. Walker III, Charles. 2007. Biological and ecological attributes of some endangered vascular plants of southern Illinois. M.S. SIUC.
72. \*§ West, N.W. 2005. Microhabitat analysis of exotic species on Illinois shale barrens. M.S.SIUC.

73. \* Wilker, John R. 1999. Hydrochory and seed density patterns within an alluvial Cypress-Tupelo swamp in Southern Illinois. M.S. SIUC.
74. \*Wilson, Laurel. 2013. Plant community response to regional sources of dominant grasses in grasslands restored across a longitudinal gradient. M.S. SIUC.
75. Wood, James, L. 2010. Peatland communities and environmental parameters in an undisturbed boreal poor fen and a comparison with haul road disturbances. M.S. SIUC.

#### PhD students:

1. Adams, Bryan R. 1993. A taxonomic revision of the genus *Scaphyglottis* Poeppig & Endl. Ph.D. SIUC.
2. \* Barfknecht, David F. 2022. Diversity, community structure shifts, and patch characteristics in natural xeric forest opening communities. PhD SIUC.
3. Basinger, Mark A. 1999. The effects of disturbance on the vegetation and flora of two old growth forests in southern Illinois. Ph.D. SIUC.
4. Benscoter, B.W. 2007. Temporal and spatial variability of peat accumulation and vegetation of post-fire boreal bogs. Ph.D. SIUC.
5. Bhattacharyya, Sumita. 2003. Influence of an extensive inquiry-based field experience on pre-service elementary student teacher's science teaching beliefs. PhD, Dept Curriculum & Instruction, College of Education, SIUC.
6. Bogosian III, Victor. 2010. PhD. SIUC.
7. \*§ Chandy, Shibby. 2007. Spatial and temporal patterns across scales in the Shawnee National Forest, Illinois, USA. Ph.D. SIUC.
8. Decker, Madison, R. 2023. An evaluation of inter-seeded winter wheat (*Triticum aestivum*) for the suppression of common waterhemp (*Amaranthus tuberculatus*) in soybean (*Glycine max*). PhD SIUC.
9. \*DeLong, Michael. 2009. Metapopulations and metacommunity in dry forest openings in Southern Illinois. IDNR Todd Fink Award, 2004. PhD SIUC.
10. \*§ Ely, Joseph S. 2001. A test of the core-satellite species hypothesis in shale and sandstone glades in southern Illinois. PhD SIUC.
11. \*Fessel, K.E. 2003. Regeneration of woody plant species in a cypress swamp in Illinois. PhD dissertation, SIC. Co-advisee with Beth Middleton.
12. \* Gage, Karla. 2013. Effects of anthropogenic selection pressure on the evolution of a common agricultural weed: Does adaptation come with a detectable cost? A study of glyphosate-resistant (GR) and -susceptible (GS) biotypes of *Conyza canadensis*. PhD SIUC. Co-advisee with Bryan Young.
13. Giedeman, Charles P. 1999. Restoration potential of farmed bottomland forests of the Mississippi River near St. Louis, Missouri. PhD, SIUC.
14. \*§ Gustafson, Danny. 2000. Investigation of the genetic and ecological consequences of habitat reduction and fragmentation of remnant and restored tallgrass prairies. Ph.D. SIUC. Co-chair with D.Nickrent.
15. \*§ Honu, Yohanas, A.K.. 2004. Diversity of exotic species across forest edges in the Shawnee National Forest, Illinois, USA. PhD SIUC.
16. \*§ Hoyer, Erik. 2005. A functional assessment of restored and reference wetlands along the Cache river, Illinois. PhD SIUC. Co-advisee with Beth Middleton.
17. \*Khalil, Mohammed, I. 2017. Effect of population sources and species pools on community phylogenetic and functional diversity during restoration. PhD SIUC.
18. Klopff, Ryan. 2013. Community and ecosystem changes in tallgrass prairie restorations: the effects of population source and diversity. PhD SIUC.

19. \* Kurttural, Sahap Kaan. 2005. Balanced cropping of ‘Chambourcin’ grapevines and a spatial decision support system for vineyard site selection in southern Illinois. PhD SIUC. Co-advisee with B. Taylor (PLSS) & I. Dami.
20. \* Liu, Xian. 2021. Prediction of non-native invasive plant species occurrences in relation to environmental variables in southern Illinois. PhD SIUC. Co-advised with Dr. Giangxing Wang.
21. Lunt, I.D. 1996. Ecology of native grasslands and grassy forests on the lowland Gippsland Plain, Victoria. Ph.D., La Trobe University, Australia (external examiner for dissertation).
22. Mathis, Marilyn. 2001. Deer herbivory and old field succession. PhD SIUC.
23. Manning, George. 2018. Environmental and biotic processes influencing floristic composition, quality, integrity, and function in tallgrass prairie assemblages. PhD SIUC.
24. Messinger, Olivia J. 2013. The role of visual and olfactory cues in host recognition for the specialist bee genus *Diadasia*, and implications for the evolution of host choice. PhD SIUC.
25. \*§ Millar, K.D.L. 2008. Physiological and nutritional studies of oilseed crops in response to competition and manganese supply. PhD SIUC. Co-advisee with Andrew Wood.
26. Mettler-Cherry, Paige A. 2004. Population biology of the threatened floodplain species, *Boltonia decurrens*: determination of stage based demography and implications for succession. PhD SIUC.
27. McClelland Mooneyhan, Rebecca. 2011. Ground layer response to disturbance in the pine-dominated eastern foothill region of Alberta, Canada. PhD SIUC.
28. Muncia, Clara. 2018. Examining the factors influencing the abundance and distribution of sorghum (*Sorghum bicolor* [L.]: a preliminary analysis of the west Sahel of Sub-Saharan Africa. PhD ER&P program, SIUC.
29. Osborn, Heather. PhD student.
30. Nolte, S. A. 2009. Characterizing the response of *gdhA* transformed tobacco to glufosinate. PhD SIUC.
31. Paudel, Shishir. Climate change, shifts in tropical storm regimes and *Triadica sebifera* invasion on the coastal Mississippi United States. PhD SIUC.
32. Qie, Guangping. 2019. Mapping and uncertainty analysis of urban vegetation carbon density by combining spatial modeling, de-shadow & spectral unmixing analysis., PhD SIUC ER&P program.
33. \* Ren, Zhe. 2002. Inferring mechanisms of community assembly from phylogenetic and functional diversity. PhD SIUC.
34. \*Romano, Susan P. 2006. Forest strata assemblage relationships and tree growth response to flooding in a hydrologically modified floodplain, southwestern Illinois, USA. PhD SIUC. Co-advisee with Jim Zaczek, Forestry.
35. Sankaran, R. 2005. Effects of heavy metals on growth and reproductive development of plants. PhD SIUC.
36. \*Schwartz, Lauren. 2015. A comparative study of the population dynamics of four Amaranthaceae species. Co-advisee with Bryan Young. PhD SIUC.
37. Scott, Drew. 2019. Environmental heterogeneity effects on diversity and nitrous oxide emissions from soil in restored prairie. PhD SIUC.
38. \*Seaton, Nicholas. 2020. MS student.
39. Shultz, Jeffry. 2005. Recently duplicated genomes and genic regions can be resolved with fingerprinting given sufficient and appropriate bio-informatic analysis. PhD SIUC.
40. Sipek, William. 2021. MS student.
41. Thogmartin, Wayne, E. 2001. Spatio-temporal dynamics of northern bobwhite (*Colinus virginianus*) in Illinois. PhD dissertation. SIUC, Department of Zoology.
42. Winther, Austin. 1998. Teacher decision-making in implementing a new environmental education curriculum: A qualitative study. PhD. SIUC, College of Education, Department of Curriculum and Instruction.

43. \*Willand, Jason. 2014. When do propagules matter? The role of ecological filters and regeneration dynamics during community assembly in tallgrass prairie restorations. PhD SIUC. Co-advisee with Sara Baer.
44. Wodika, Ben, R. 2015. Community responses of above and belowground invertebrates to prairie restoration: the effects of time, seed source, plant diversity, and plant community composition. PhD SIUC.
45. Wuerffel, R.J. 2014. A characterization of selection for evolved resistance to protoporphyrinogen oxidase (PPO)- inhibiting herbicides in *Amaranthus tuberculatus*. PhD SIUC.

**Non-thesis students (title of practicum shown):**

1. \*Aymond, Neil. M.S. Coastal Zone Studies, UWF. 1991. Pensacola Naval Air Station nature trail.
2. \*Athnos, Diana L. M.S. Coastal Zone Studies, UWF. 1992. Compensatory mitigation in the Gulf Coast States: Can we achieve "no net loss" of wetlands?
3. \*Hardy, Philips B. M.S. Coastal Zone Studies, UWF. 1992. A characterization of East Pond, a barrier island dune pond within the Fort Pickens unit of the Gulf Islands National Seashore.
4. \*Looney, Paul B. M.S. Coastal Zone Studies, UWF. 1992. The Perdido Key beach renourishment project.

**Current thesis/dissertation students (\* advised/co-advised by Gibson):**

1. \*Ahmed, Shamim. MS student.
2. \*Carrigan, Christopher Kane. MS student (co-advised with Dr. Holzmüller).
3. \*Felsl, Ingrid. MS student.
4. \*Foster, Bryan. PhD student
5. Kassim, Leila, MS student.
6. Osori, Sara. MS student.
7. \*Thapa, Saroj. PhD student, ER&P program (co-advised with Dr. Li)
8. Xu, Xiaoyu. PhD student, ER&P program.

**Funded Grants (total \$7,565,139):**

National Science Foundation. 1986, with R.E. Good, M.D. Morgan & H.G. Spratt. Support of the Rutgers Pinelands Field Station as a National Field Research Facility, \$100,000.

National Science Foundation LTER Program, subcontract through Kansas State University. 1989. "Survey of permanent plots at Konza Prairie Research Natural Area," \$5,406.

University of West Florida, Committee on Scholarly and Creative Activities. 1989. "Forest tree composition on the University of West Florida campus", \$1,500.

National Park Service. 1989-1994. "Vegetation monitoring before and after beach renourishment on Perdido Key", \$237,951 plus \$111,422 matching from UWF.

National Science Foundation LTER Program, subcontract through Kansas State University. 1990. "Survey of permanent plots at Konza Prairie Research Natural Area, 1990," \$6,016.

University of West Florida, Committee on Scholarly and Creative Activities. 1990. "Population biology of a dioecious shrub: *Ceratiola ericoides* (Florida Rosemary)", \$1430.

National Science Foundation. 1991-1994, with D.C. Hartnett, B.A.D. Hetrick & A.P. Schwab. "Mycorrhizal mediation of plant competition and community structure," \$278,381.

- University of West Florida, College of Art & Sciences, Resource Allocations Committee, Research Awards for Newer Faculty. 1992. "Effects of sand fencing on dredge spoil stabilization." \$1,200.
- National Science Foundation. 1994-1997, with D.C. Hartnett, B.A.D. Hetrick & A.P. Schwab. "Mycorrhizal mediation of grassland biotic interactions and plant community structure." \$330,000.
- Illinois Department of Conservation. 1993. "Distribution of *Calamagrostis insperata* in Southern Illinois". \$3,000.
- USDA/Forest Service. 1993. "Distribution of *Calamagrostis insperata*". Tri-partite Challenge Cost-Share Agreement between USDA/Forest Service, IDOC & SIUC. \$700.
- SIUC/ORDA. 1993-1995. "Field measurements of photosynthetic rates of prairie grasses on coal mine spoils." \$19,314.
- USDA/Forest Service. 1993-1999. "Research Natural Area plot monitoring program". \$10,000.
- National Park Service. 1994. "Coastal Park Inventory & Monitoring Protocols." \$300.
- SIUC/ORDA. 1995. "Effects of a fungal endophyte on competitiveness of tall fescue." Summer Fellowship.
- SIUC/ORDA. 1995, with J.A. Newman. "Plant-animal interactions under global environment change." University Priorities and Interdisciplinary Initiative Program. \$6,000.
- USDA/Forest Service. 1995. "Dispersal of plant species by horses and deer within Natural Areas on the Shawnee National Forest." \$3,762.
- Illinois Nature Preserves Commission. 1995-1997, with D. Nickrent. "Assessment of baseline genetic and ecological data on selected prairie plant species: Implications for conservation and management." \$29,491.
- C-FAR Research Initiative. 1996-98, with J.A. Newman & R.G. Dado. "Effects of changes in ambient CO<sub>2</sub> concentrations and the endophytic fungus (*Acremonium coenophialum*) on the yield and digestibility of tall fescue (*Festuca arundinacea*)." \$90,000.
- National Science Foundation. 1996-1999, with B.A. Middleton, G.S. Saunders, A. Lumpe, & F. Olsen. "Long-term field studies in undergraduate education: A snapshot in time." \$242,000.
- Illinois Department of Natural Resources. 1996-1997, with J. Ely. "Effects of various management regimes on species composition in shale glade communities in Southern Illinois." \$1,000.
- British Ecological Society. 1998-1999. "Performance of tall fescue (*Festuca arundinacea* Schreber.) populations in Great Britain". Small Ecological Project Grant No. 1584. GBP 1,800 (~\$2,900)
- SIUC/University Core Curriculum Executive Council. 1998. "A writing across the curriculum assignment for Environmental Issues (PLB 301i): A university core curriculum course." Teaching Enhancement Award. \$3,400 awarded for Summer 1998.
- SIUC. Sabbatical Leave Extension Award. 1.5 month of summer salary awarded for Summer 1999. \$7920 plus fringe benefits.
- Oxford University Press. 1998-2000, with M.J. Hutchings, & E. John. Methods in Comparative Plant Population Ecology. Book contract. GBP1,000 (~\$1,640) advance royalties.
- Teaching Excellence in Mathematics and Science Committee. New Program Request for Teaching Excellence in Mathematics and Science Initiative for RAMP 2000. \$448,000 requested, \$400,000 approved for funding in the IBHE budget.
- Illinois Department of Natural Resources. 1999-2000, with G. Spyreas. "Life history studies on *Microstegium vimineum* an invasive exotic in Southern Illinois." \$1,000.
- British Ecological Society. 2000-ongoing. "Editorship: Journal of Ecology." \$126,000+ as of Jan 2019.
- Illinois Department of Natural Resources. 2000-2001, with T. Beyerl. "Habitat and reproduction in *Dioscorea batatas* an invasive plant species in southern Illinois." \$1,000.
- Illinois Department of Natural Resources. 2000-2001. "Comparative life history studies of *Microstegium vimineum*, an invasive exotic in Southern Illinois." \$1,000.

- USDA Forest Service, North Central Experimental Station. 2000-2004, with P.A. Robertson. “Preliminary analysis of vegetation patterns in southern Illinois RNAs.” \$7,500.
- Illinois Department of Natural Resources. 2000-2002, with B.A. Middleton. “Dispersal of the exotic *Dioscorea oppositifolia*.” \$10,500.
- Illinois Department of Natural Resources. 2000-2003, with Dale Vitt. “Biological and ecological attributes of the endangered vascular plants of southern Illinois.” \$5,000.
- Illinois Department of Natural Resources. 2000-2003, with Sedonia Sipes. “Genetic diversity of *Dioscorea oppositifolia*, an invasive exotic in southern Illinois.” \$1,000.
- National Science Foundation (subcontracted through New Mexico State University). 2002-2003, with Matthew Whiles. “Fitting metapopulation models of community structure to stream macroinvertebrate data: issues and problems of taxonomic resolution.” A cross-site LTER research project. \$6,000.
- Illinois Endangered Species Protection Board. 2002-2004. “Reproductive biology of *Calamagrostis insperata*, bluejoint grass.” \$15,870.
- Oxford University Press. 2003-2006. Book contract: “Grasses and Grassland Ecology.” Advance Royalties of ~ \$3,200.
- USDA Forest Service. “Bluejoint grass restoration: Challenge-Cost Share Agreement.” 2003-2008. \$5,000.
- British Ecological Society. “Biological Flora of a rare fescue (*Festuca longifolia* Thuill).” 2003. £1,405 (~\$2,000).
- Illinois Department of Natural Resources. 2003-2004, with Natalie West. “Invasion of the exotic Japanese bush clover (*Kummerowia striata*) in Illinois shale barrens.” \$1,000.
- USDA NRICGP Program. 2004-2006, with Andrew Wood and Bryan Young. “Quantifying multispecies interactions between crops (soybean: *Glycine max*) and weeds: a new approach.” \$200,000.
- Illinois Department of Natural Resources. 2003-2004, with Natalie West and Michael Delong. “Collier Glade Restoration Project.” \$1,980.
- Illinois Department of Natural Resources. 2003-2004, with Natalie West and Michael Delong. “Collier Glade Restoration Project – Year 2.” \$1,430.
- USDA Forest Service, Shawnee National Forest. 2004-2006, with Loretta Bataglia. “Inventory of Non-native Invasive Species.” \$10,000.
- Illinois Soybean Program Operating Board. 2004-2005, with Bryan Young and Andrew Wood. “Detecting non-visible soybean stress resulting from weed management practices.” \$6,500.
- Illinois Department of Natural Resources. 2005, with Sara Baer and Matt Whiles. “Center for Ecology/IDNR Undergraduate student internships.” \$10,000.
- Illinois Department of Natural Resources. 2005-2006, with Sedonia Sipes. “Analysis of Illinois plants in need of conservation – a supplement to the Comprehensive Wildlife Conservation Plan.” \$12,210.
- Illinois Department of Natural Resources. 2005-2006, with Michael Delong. “Inventory and management of forest openings as metapopulations.” \$1,997.
- National Science Foundation. 2005 – 2008, with Sara Baer. “Hierarchical Consequences of Intraspecific Variation on Community and Ecosystem Re-assembly.” \$459,551.
- Illinois Department of Natural Resources. 2006, with Sara Baer and Matt Whiles. “Center for Ecology/IDNR Undergraduate student internships.” \$10,000.
- Illinois Clean Energy Community Foundation. 2007-2009, with Sara Baer, John Groninger and Matt Whiles. “Statewide Natural Land Management Internship Program.” \$30,000.
- National Science Foundation. 2007 – 2011, with Karen Renzaglia, Sedonia Sipes, Harvey Henson and Frackston Mumba. “Heartland Partnerships: Inquiry-based Ecological and Environmental Education at SIUC.” \$1,862,457.

- Illinois Department of Natural Resources. 2007, with Sara Baer and Matt Whiles. "Center for Ecology/IDNR Undergraduate student internships." \$10,000.
- US Fish and Wildlife Service. 2007, with Loretta Battaglia. "Invasive Species Survey on Cypress Creek NWR." \$7,900.
- National Great Rivers Research & Education Center. 2008, with Loretta Battaglia. "If we build it, will they leave? Evaluating invasive species assemblages across a chronosequence of restored floodplain forest." \$5,800.
- National Science Foundation. 2008-2009, with Sara Baer and Danny Gustafson. "Genotype sorting as a mechanism for structuring plant communities". ROA Supplement to Hierarchical Consequences of Intraspecific Variation on Community and Ecosystem Re-assembly." \$24,589 (subcontract to D. Gustafson at The Citadel).
- Illinois Department of Natural Resources. 2008, with Matt Whiles, Sara Baer and John Groninger. "Center for Ecology/IDNR Undergraduate student internships." \$10,000.
- Illinois Clean Energy Community Foundation. 2008-2009, with Sara Baer, John Groninger and Matt Whiles. "Continuation of Statewide Natural Land Management Internship Program." \$56,266.
- USDA/CREES/NRI subcontract through Kansas State University – Plant Biology and Abiotic Stress Program. 2008-2010. "Ecotypic variation and functional response of an ecologically dominant species across a precipitation gradient and in response to altered precipitation: Test for local adaptation and ecosystem function". L. Johnson, E. Achunov, S. G. Baer, K. Garrett, T. Morgan, and P. St. Amand. Total Award: \$394,439 (includes \$149,813 Subcontract from Kansas State University to S. G. Baer and D. J. Gibson).
- Illinois Department of Natural Resources. 2008 - 2009, with Eric Holzmueeller. "Response of flowering dogwood (*Cornus florida*) to dogwood anthracnose and fire in southern Illinois." \$2,065.
- Illinois Department of Natural Resources. 2009, with Matt Whiles, Sara Baer and John Groninger. "Center for Ecology/IDNR Undergraduate student internships 2009." \$12,353.
- US Forest Service. 2009-2014. "Shawnee National Forest vegetation plot analysis." \$8,402.
- Illinois Department of Natural Resources. 2010, with John Groninger, Sara Baer and Matt Whiles. "Center for Ecology/IDNR Undergraduate student internships 2010." \$12,353.
- Illinois Clean Energy Community Foundation. 2010-2013, with Sara Baer, John Groninger and Matt Whiles. "Training Illinois' future natural resource managers through a statewide natural areas internship Program." \$33,320.
- Illinois Department of Natural Resources. 2011, with Sara Baer, John Groninger, and Matt Whiles. "Natural Areas Management Internship Program 2011." \$12,353.
- Illinois Department of Natural Resources. 2011. "Stiltgrass summit field trip and public lecture." \$2,893.
- Illinois Department of Natural Resources. 2012-2013. "Population dynamics of endangered *Iresine rhizomatosa*." \$1,998.
- Illinois Department of Natural Resources. 2014. "Herbaceous sampling Trail of Tears State Forest." \$4,900.
- Dow Agrosciences. 2012-2019. "Field trials." \$15,000.
- Shawnee RC&D. 2015-2017. "Invasive Species Data Compilation." \$66,515.
- Shawnee RC&D. 2018. "River to River Cooperative Weed Management Area Project Coordination." \$15,312.
- National Science Foundation. 2018-2023. River to River Master Teaching Fellowships in Environmental Sustainability. With Karen Renzaglia (lead PI), S. Green, Mike Lydy, Leslie Durham. \$2,196,757.
- U.S. Forest Service, State & Private Forestry, Northeastern Area. 2018-2021. "Landscape Scale Stewardship Clusters: Prioritized Implementation of Oak Ecosystem Recovery" to Shawnee RC&D. \$298,005. SIUC Subcontract \$42,969.

Monsanto, Inc. 2018-2020. "Functional trait and phylogenetic diversity relationships of weed communities to cropping systems across a 6 state area." With co-PI Karla Gage. \$46,389.  
 Shawnee RC&D. 2018. "Trail of Tears Vegetation Data Analysis." \$7, 270.  
 National Science Foundation. 2020-2023. "Collaborative research: exploring the impact of Noyce Master Teaching Fellowship programs on teacher retention: The role of motivation, leadership, and school-work environment." With Karen Renzaglia and collaborators at Rice University. \$104,961 to SIUC.  
 Chicago Botanic Garden. 2021-2023. "Southern Illinois Plants of Concern Program. \$305,315.  
 Creekbank Associates LLC. 2021-2022. "Population Modelling." \$8,000.

**Scientific Talks and Invited Presentations. This is an incomplete list, Gibson as presenter when shown in bold, oral presentation unless indicated otherwise. Presentations are identified as (I) invited, (L) local, (N) national or International (It).**

1. **Gibson, D.J.**, Johnson, F.L., & Risser, P.G. 1980. Natural revegetation of coal strip mines in eastern Oklahoma. Oklahoma Academy of Science, Norman, OK. (N)
2. **Gibson, D.J.**, Johnson, F.L., Risser, P.G. 1981. Natural revegetation on abandoned coal strip mines in Eastern Oklahoma. Southwestern Association of Naturalists, 27th Annual Meeting, New Orleans, LA. (N)
3. **Gibson, D.J.** 1981. Heavy metal tolerance without the evolution of tolerant races. British Ecological Society Annual Meeting, Southampton, UK. (N)
4. **Gibson, D. J.** 1983. Plant spatial patterns and soil heterogeneity relationships in grassland. British Ecological Society Annual Meeting, Leicester, UK. (N)
5. **Gibson, D.J.** 1984. Plant spatial patterns and soil heterogeneity relationships in grassland. Invited talk. Institute of Terrestrial Ecology, Bangor, UK. (I)
6. **Gibson, D.J.**, Colquhoun, I.A., & Greig-Smith, P. 1984. A new method for measuring nutrient supply rates in soils using ion-exchange resins. Poster. British Ecological Society Meeting, Ecological Interactions in Soil, York, UK. (N)
7. **Gibson, D.J.** 1985. Small-scale patterns and soil heterogeneity in grassland. Rutgers University Seminar Series, New Brunswick, NJ. (I)
8. **Gibson, D.J.** 1985. The role of soil heterogeneity in the control of plant spatial patterns in a dune grassland. Ecological Society of American Annual Meeting, Minneapolis, Mn. (N)
9. **Gibson, D.J.** 1985. The measurement of root activity in soils using a non-radioactive tracer. New Jersey Academy of Science, Trenton, NJ. (N)
10. **Gibson, D.J.**, Collins, S.L., & Good, R.E. 1986. Early effects of ecosystem fragmentation on oak-pine vegetation in the New Jersey Pine Barrens. IVth International Congress of Ecology, Syracuse, NY. (It)
11. **Gibson, D.J.** 1987. The experimental approach in plant ecology. Invited talk. Rutgers University Seminar Series, New Brunswick, NJ. (I)
12. **Gibson, D.J.** 1987. Fire effects on tallgrass prairie. Invited talk, University of Oklahoma Seminar Series, Norman, OK. (I)
13. **Gibson, D.J.** 1987. Fire effects on tallgrass prairie vegetation. Ecological Society of American Annual Meeting, Columbus, OH. (N)
14. **Gibson, D.J.**, & Collins, S.L. 1987. Effects of fire and disturbance on plant community structure in tallgrass prairie. British Ecological Society Annual Meeting, Cambridge, UK. (N)

15. **Gibson, D.J.** 1988. Comparison of fire effects in forest and grassland. Invited talk. Archbold Biological Station, Lake Placid, FL. (I)
16. **Gibson, D.J.** 1988. Comparison of fire effects in forest and grassland. Invited talk, University of Connecticut, Storrs, CT. (I)
17. **Gibson, D.J.** 1988. Comparison of fire effects in forest and grassland. Invited talk, University of West Florida, Pensacola, FL. (I)
18. **Gibson, D.J.** 1989. The influence of grazing by small mammals and invertebrates on plant species richness and abundance in tallgrass prairie. Poster. Ecological Society of American Annual Meeting, Toronto, Canada. (It)
19. **Gibson, D.J.**, Hartnett, D.C. & Merrill, G.L.S. 1989. Fire temperature heterogeneity in contrasting fire prone habitats: Kansas tallgrass prairie and Florida sandhill. Poster. 17th Tall Timbers Fire Ecology Conference, Tall Timbers Research Station, Tallahassee, FL. (N)
20. **Gibson, D.J.** 1990. Plant population and community studies on NW Florida coastal dunes. Invited talk. Natural History Seminar Series, Florida State University, Tallahassee, FL. (I)
21. **Gibson, D.J.** 1990. Natural history of Konza Prairie Research Natural Area, Kansas. Audubon Society, Pensacola, FL. (I)
22. **Gibson, D.J.**, Looney, P.B., & Cousens, M.I. 1990. Succession in coastal barrier island communities over a ten-year period. Ecological Society of American Annual Meeting, Snowbird, UT. (N)
23. **Gibson, D.J.** 1991. Demography and pattern of Florida Rosemary in Panhandle Scrub. Invited talk. Archbold Biological Station, Spring Seminar Series. Archbold Biological Station, Lake Placid, FL. (I)
24. **Gibson, D.J.** 1990. Fire Ecology. Science Seminar for Superior Students, University of West Florida, Pensacola, FL. (I)
25. **Gibson, D.J.**, P.B. Looney, & R.L. Hill. 1991. Seasonal variation in vegetation classification of a Florida coastal barrier island. Poster. Ecological Society of American Annual Meeting, San Antonio, TX. (N)
26. **Gibson, D.J.** 1992. Plant population and community studies on NW Florida coastal dunes. Invited talk. Southern Illinois University at Carbondale, Carbondale, IL. (I)
27. **Gibson, D.J.** & E.S. Menges. 1992. Demographic studies of the dioecious shrub, Florida rosemary (*Ceratiola ericoides* Michx.), from coastal and inland scrub. History and Ecology of the Florida scrub 1992 Conference Commemorating the 50 th Anniversary of Archbold Biological Station, Lake Placid, FL. (I)
28. **Gibson, D.J.** & E.S. Menges. 1993. Demographic studies of the dioecious shrub, Florida rosemary (*Ceratiola ericoides* Michx.), from coastal and inland scrub. Ecological Society of American Annual Meeting, Madison, WI. (N)
29. **Gibson, D.J.** 1994. Primary succession on a coastal barrier island. Illinois State University, Seminars in the Biological Sciences. March 31, 1994. (I)
30. **Gibson, D.J.** 1994. Where do non-science majors find environmental science? National Association of Biology Teachers, Annual Conference, St. Louis, MS. (Poster presentation). (N)
30. **Gibson, D.J.** 1994. Effects of fire on plant communities in the Konza Prairie Research Natural Area (Manhattan, Kansas). SIUC Department of Plant & Soil Science seminar series. Nov 15. (I)
31. **Gibson, D.J.**, Ely, J.S., & Looney, P.B. 1994. Primary succession on dredge spoil deposited on a northwest Florida coastal barrier island. Ecological Society of America Annual Meeting, Knoxville, TN. (Poster presentation). (N)
32. **Gibson, D.J.** & G. Towne. 1994. Dynamics of Big bluestem (*Andropogon gerardii*) in ungrazed Kansas tallgrass prairie. Fourteenth North American Prairie Conference, Kansas State University, Manhattan, KS. (N)

32. **Gibson, D.J.** 1995. Fire and Bison: Konza Prairie Research Area, Kansas. SIUC Wildlife Society seminar series. Feb 16, 1995. (I)
33. **Gibson, D.J.** 1994. Where do non-science majors find environmental science? SIUC Sigma Xi Research Day. (Poster presentation). (N)
34. **Gibson, D.J.**, Ely, J.S., & Looney, P.B. 1994. Primary succession on dredge spoil deposited on a northwest Florida coastal barrier island. SIUC Sigma Xi Research Day. (Poster presentation). (N)
35. **Gibson, D.J.**, & Looney, P.B. 1995. The soil seed bank of a coastal barrier island. Ecological Society of America Annual Meeting, Snowbird, Utah. (N)
36. Skeel, V.A., & **Gibson, D.J.** 1995. Leaf gas exchange of *Andropogon gerardii* Vitman, *Panicum virgatum* L., and *Sorghastrum nutans* (L.) Nash on restored mine spoil. Ecological Society of America Annual Meeting, Snowbird, Utah. (Poster presentation). (N)
37. **Gibson, D.J.**, Newman, J.A., & V.A. Skeel. 1996. Physiological effects of a fungal endophyte on competitiveness of tall fescue. Ecological Society of America Annual Meeting, Providence, RI. (N)
38. **Gibson, D.J.**, Middleton, B.A., & G.W. Saunders. 1996. The establishment of a long-term field experiment to enhance undergraduate ecology education. Ecological Society of America Annual Meeting, Providence, RI. (Poster presentation). (N)
39. Skeel, V.A., & **Gibson, D.J.** 1996. Leaf gas exchange of *Andropogon gerardii* Vitman, *Panicum virgatum* L., and *Sorghastrum nutans* (L.) Nash on restored mine spoil. SIUC Sigma Xi Research Day. (Poster presentation). (N)
40. **Gibson, D.J.**, Middleton, B.A., & G.W. Saunders. 1996. Enhancing undergraduate education in environmental science and ecology: The role of long-term field studies. SIUC Showcase for Regional Innovation. (N)
41. **Gibson, D.J.**, Middleton, B.A., & Saunders, G.S. 1997. Directed inquiry in ecology instruction: the transition. Ecological Society of America, Annual Meeting, Albuquerque, NM. (Poster presentation). (N)
42. **Gibson, D.J.**, Newman, J.A., Dado, R.G., & Hadlock, T. 1997. Elevated CO<sub>2</sub> effects on the *Festuca arundinacea* endophyte mutualism. British Ecological Society, Winter and Annual General Meeting, December, 1997. (N)
43. **Gibson, D.J.** Elevated CO<sub>2</sub> effects on the tall fescue-endophyte system. Ohio University, Department of Environment and Plant Biology Colloquim Series. Feb 6th, 1998. (I)
44. **Gibson, D.J.**, Newman, J.A., Dado, R.G., Hickman, A., & M. Abner. Nitrogen effects upon the tall fescue-endophyte mutualism under elevated CO<sub>2</sub>. Ecological Society of America, 83rd Annual Meeting, Baltimore, MD. Aug 2-6, 1998. (N)
45. **Gibson, D.J.** Newman, J.A., Dado, R.G., Hickman, A., & Abner, M. Nitrogen effects on the response of the tall-fescue (*Festuca arundinacea*) – endophyte (*Neotyphodium coenophialum*) mutualism to elevated CO<sub>2</sub>. British Ecological Society, Winter Annual Meeting, Leicester University, UK. Jan 3-5, 1999. (N)
46. **Gibson, D.J.**, & Ely, J.S. 1999. Using sample dissimilarities to measure community heterogeneity: unacceptable sensitivity of the statistically correct method. British Ecological Society, Annual Symposium, Ecological Consequences of Habitat Heterogeneity, University of Sussex, UK. Mar 23-25, 1999. (Poster presentation). (N)
48. **Gibson, D.J.**, Adams, E.D., Ely, J.S., Gustafson, D.J., McEwen, D.N., & Evans, T. 1999. Eighteen years of herbaceous layer recovery of a recreation area in an oak-hickory forest. Ecological Society of America, 84<sup>th</sup> Annual Meeting, Spokane, Wa, 8-12 August, 1999. (Poster presentation). (N)

49. **Gibson, D.J.**, & Taylor, I. 2001. Morphological variation in populations of *Festuca arundinacea* in England. Ecological Society of America, 86<sup>th</sup> Annual Meeting, Madison, WI, 5-10 August, 2001. (Poster presentation). (N)
50. **Gibson, D.J.** 2002. Aliens in the Ecology Lab. SIUC Ecology Consortium Seminar Series. March 20, 2002. (N)
51. **Gibson, D.J.**, Spyreas, G., & Benedict, J. 2002. Life history of *Microstegium vimineum* (Poaceae), an invasive exotic in southern Illinois. Ecological Society of America, 87<sup>th</sup> Annual Meeting, Tucson, AZ, August 4-9, 2002. (Poster presentation). (N)
52. **Gibson, D.J.**, Middleton, B.A., Foster, K., Honu, Y.A.K., Hoyer, E., & Mathis, M. 2003. Core and satellite species dynamics in response to disturbance and fertilization during early old-field succession. Ecological Society of America, 88<sup>th</sup> Annual Meeting, Savannah, GA, August 4-8, 2003. (Poster presentation). (N)
53. Romano, S.P., Zaczek, J.J., Williard, K., Gibson, D.J., Battaglia, L.L., & Baer, S.G. 2005. Soil texture and forest strata relationships of the central floodplain forest, lower Kaskaskia river, Illinois. Mississippi River Research Consortium, 37<sup>th</sup> Annual Meeting Program. Radisson, La Crosse, Wisconsin. April 29<sup>th</sup>, 2005. (N)
54. Wood, A.J., D.J. Gibson, B.G. Young, J. Connolly, L. Kirwan, K. Millar, & J.S. Ely. 2005. Quantifying multispecies interactions between crops (soybean: *Glycine max*) and weeds: a new approach. USDA-CRESS Project Directors Meeting, Washington DC. November, 2005. (N)
55. Brophy, C., Connolly, J., Wayne, P.M. & Gibson, D.J. 2006. Modelling reproductive allocation in *Sinapis arvensis*. (Proceedings of the 26<sup>th</sup>) Conference on Applied Statistics in Ireland.. May 17 – 19, The Hotel Europe, Killarney, Co. Kerry, Ireland. (N)
56. Brophy, C., Gibson, D.J., Wayne, P.M. & Connolly, J. 2006. Modelling reproductive allocation in *Sinapis arvensis*. Ecological Society of America, 91<sup>st</sup> Annual Meeting, Memphis, TN, August 6-11, 2006. (N)
57. Delong, M. K., Heatherly, T, Whiles, M.R., Gibson, D.J., Collins, S.L., Huryn A.D., Jackson, J.K. & Palmer, M.A. 2006. Modeling of patch occupancy patterns in stream insect metacommunities: toward an understanding of factors influencing the distribution of stream insects. Ecological Society of America, 91<sup>st</sup> Annual Meeting, Memphis, TN, August 6-11, 2006. (Poster presentation). (N)
58. **Gibson, D.J.**, Wood, A.J., Young B.G., Connolly, J., Kirwan L., Millar K. & Ely, J. 2006. Quantifying multispecies interactions between crops (soybean: *Glycine max*) and weeds: a new approach. Ecological Society of America, 91<sup>st</sup> Annual Meeting, Memphis, TN, August 6-11, 2006. (Poster presentation). (N)
59. Hansen, M. J., & Gibson, D.J. 2006. Is ecological restoration successful? An assessment of a prairie restoration in northern Illinois, US. Ecological Society of America, 91<sup>st</sup> Annual Meeting, Memphis, TN, August 6-11, 2006. (Poster presentation). (N)
60. Inczauskis, J.R., M.S. Hacker, L.L. Battaglia, D.J. Gibson. 2006. Construction of a non-native invasive species database for eleven southern Illinois counties. [Midwest Invasive Species Network Symposium](#), 61<sup>st</sup> Meeting North Central Weed Society. Dec 11<sup>th</sup> – 14<sup>th</sup>, Hyatt Regency, Milwaukee, Wisconsin. (R)
61. Inczauskis, J.R., Schroeder, M.M., Battaglia, L.L. & Gibson, D.J. 2006. Development of a non-native invasive species database for Southern Illinois. Saint Louis Area Undergraduate Research Symposium, Washington University School of Medicine, Eric P. Newman Education Center, Washington University in Saint Louis, Saint Louis. April 22, 2006. (N)
62. Millar, K. Gibson, D.J., Young, B.G., & Wood, A.J. 2006. Seed quality dynamics of soybean grown under competition. 61<sup>st</sup> Meeting North Central Weed Society. Dec 11<sup>th</sup> – 14<sup>th</sup>, Hyatt Regency, Milwaukee, Wisconsin. (R)

63. Romano, S.P., Zaczek, J.J., Gibson, D.J., Baer, S.G., Battaglia, L.L. & Williard, K. 2006. Implications of succession, flood duration, flood frequency, and soil texture for overstory, midstory, and seedling communities of a central floodplain forest, southern illinois, USA. International Conference on Rivers and Civilization: Multidisciplinary Perspectives on Major River Basins, La Crosse, Wisconsin USA June 25-28, 2006. (N)
64. West, N. M., Gibson, D.J. & Minchin, P.R. 2006. Exotic species microhabitats in Illinois shale barrens. Ecological Society of America, 91<sup>st</sup> Annual Meeting, Memphis, TN, August 6-11, 2006. (Poster presentation). (N).
65. Brophy, C., Gibson, D.J., Wayne, P.M. & Connolly, J. 2007. A mixture model and bootstrap analysis to assess reproductive allocation in plants. International Workshop of Correlated Data Modelling. University of Limerick, June 20-22. (I).
66. Delong, M.K. & Gibson, D.J. 2007. Vascular plant metapopulation dynamics and metacommunity structure within prairie-like forest openings in southern Illinois. Ecological Society of America, 92<sup>nd</sup> Annual Meeting, Society for Ecological Restoration 18<sup>th</sup> International Conference. August 5<sup>th</sup> – 10<sup>th</sup>, 2007, San Jose, CA. (oral presentation). (I).
67. Hacker, M.S., Battaglia, L.L. & Gibson, D.J. 2007. Potential effects of the invasive *Celastrus orbiculatus* Thunb. on soil seedbank composition. SIUC Undergraduate Research Forum, March 26, 2007. SIUC, Carbondale, IL.(poster presentation) (L).
68. Inczauskis, J.R., Hacker, M.S., Battaglia, L.L. & Gibson, D.J. 2007. An exotic species database for determining the distribution of exotic plants in southern Illinois. Ecological Society of America, 92<sup>nd</sup> Annual Meeting, Society for Ecological Restoration 18<sup>th</sup> International Conference. August 5<sup>th</sup> – 10<sup>th</sup>, 2007, San Jose, CA. (poster presentation). (I).
69. Lambert, A.M., Baer, S.G., & Gibson, D.J. 2007. Physiology of dominant grasses in prairie restoration: the effect of population seed source on plant performance. Ecological Society of America, 92<sup>nd</sup> Annual Meeting. August 5<sup>th</sup> – 10<sup>th</sup>, 2007, San Jose, CA. (poster presentation). (I).
70. Gage, K.L., Gibson, D.J., Matthews, J.L., Young, B.G., Owen, M.D., Wilson, R.G., Weller, S.C., Johnson, W.G., Shaw, D.R., & Jordan, D.L. 2008. Ecological requirements of weed communities to glyphosate-resistant cropping systems. Weed Science Society of America annual meeting. Feb 4-6, 2008. Chicago, IL. (oral presentation). (National).
71. **Gibson, D.J.** 2008. Understanding plant competition: an ecologist throws up his hands and uses soybean and its weeds as a model system. Sigma-Xi Annual Banquet. Kaplan Award lecture. April 31<sup>st</sup>, 2008. (oral presentation). (Local).
72. Brophy, C., D.J. Gibson, & Connolly, J. 2008. Statistical issues in analyzing the relationship between reproductive output and size. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. (oral presentation). (I).
73. Gage, K.L., Gibson, D.J., Matthews, J.L., Young, B.G., Owen, M.D., Wilson, R.G., Weller, S.C., Johnson, W.G., Shaw, D.R., & Jordan, D.L. 2008. The effect of glyphosate-resistant cropping systems on management of weed species diversity and herbicide resistance. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. (oral presentation). (I).
74. Lambert, A.M., S.G. Baer, & Gibson, D.J. 2008. Intraspecific variation in physiology and productivity of dominant C<sub>4</sub> grass species in a prairie restoration. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. (oral presentation). (I).
75. Reed, L.K., S.G. Baer, & Gibson, D.J. 2008. Competitive equivalency of cultivar and non-cultivar dominant prairie grasses in an experimental restoration. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. (oral presentation). (I).

76. Gustafson, D.J., Major, C., Fernandez, A., Jones, D., Gibson, D.J., & Baer, S. 2008. Genetic control of grassland assembly rules: preliminary results. Sixth Eastern Native Grass Symposium, Columbia, SC. (oral presentation) (R).
77. **Gibson, D.J.** 2008. Competitive effects and responses in an agroecological setting. Southern Illinois University Edwardsville, Department of Biology seminar series. October 27<sup>th</sup>. (oral presentation) (R).
78. **Gibson, D.J.** 2008. The role of foundation species in the North American Prairie: Genetic diversity and community assembly. 2008 Outstanding Scholar Lecture, SIUC. November 7. (oral presentation) (L). Available for download at: <http://itunes.siu.edu/> .
79. Reed, L.K. S.G. Baer, & D.J. Gibson. 2008. Competitive equivalency of cultivar and non-cultivar dominant prairie grasses in an experimental restoration. ESA. <http://eco.confex.com/eco/2008/techprogram/P13667.HTM>
80. Dewey, J., & D.J. Gibson. 2009. A competition study between the rare forest grass Porter's Reed Grass *Calamagrostis porteri* ssp. *insperata* and the invasive Garlic Mustard *Alliaria petiolata*. SIUC Undergraduate Research Forum, March 23, 2009. (L)
81. Gibson, D.J., Gage, K., Matthews, J., & B.G. Young. 2009. 2006 Seed Bank: First look. Benchmark Study Group, Saint Louis. September 14, 2009. (oral). (R).
82. Gibson, D.J., L.K. Reed, & S.G. Baer. 2009. Facilitation and competition effects among cultivar and non-cultivar sources of the dominant grasses in an experimental restoration. British Ecological Society Annual Symposium. Facilitation in Plant Communities. April 2-22. Aberdeen, Scotland. (poster). (I).
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182. Ren, Z., S.G. Baer, L. Johnson, M.B. Gallart, L.R. Wilson, **D.J. Gibson**. 2023. The role of dominant prairie species ecotypes on plant diversity patterns of restored grasslands across a rainfall gradient in the US Great Plains. *Applied Vegetation Science*, e12725. <https://doi.org/10.1111/avsc.12725>
  183. Sanders, N., N. Cooper, A. Davis-Rabosky, & **D.J. Gibson**. 2023. Editorial: Leveraging natural history collections to understand the impacts of global change. *Journal of Animal Ecology*, 92 (3): 232-236. IF= 5.60. DOI: 10.1111/1365-2656.13882

### Non-refereed publications:

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7. Hutchings, M.J., **Gibson, D.J.**, Bardgett, R., & Owen, M. 2007. *Journal of Ecology News. Journal of Ecology*, 95: 1-7.
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12. **Gibson, D.J.** 2009. Editor's Choice. *Journal of Ecology*, 97(3): online at: <http://www.journalofecology.org/view/0/edschoice973.html> and reprinted in *Bulletin of the British Ecological Society*, 40 (2): 49-50
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162. Gustafson, D.J., Nickrent, D.L., & **Gibson, D.J.** 1997. Genetic characterization of *Andropogon gerardii* Vitman. (big bluestem) in the Arkansas Grand Prairie. Bulletin of the Ecological Society of America, 78, No 4, (Supplement): 101.
163. Adams, E., D. J. Gibson, J. S. Ely, D. J. Gustafson, D. McEwen and T. Evans. 1998. Vegetation recovery over an 18 year period at a recreation facility. Abstract in: ASB Bulletin 45(2): 101.
164. Ely, J.S., & **Gibson, D.J.** 1998. The effects of restoration management upon species composition and succession in shale glade, Illinois. Ecological Society of America, 83rd Annual Meeting. Abstracts: 164.
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166. Hickman, A., Newman, J.A., **Gibson, D.J.**, Dado, R.G., & M. Abner. 1998. Effects of elevated CO<sub>2</sub> on the transmission of barley yellow dwarf virus to tall fescue when vectored by the bird cherry-oat aphid. Ecological Society of America, 83rd Annual Meeting. Abstracts: 70.
167. Mathis, M., Middleton, B.A., **Gibson, D.J.**, Lumpe, A., Kantz, K., Bhattacharyya, S., & G.W. Saunders. 1998. Improving ecological literacy through the use of inquiry teaching approaches in long-term succession plots. Ecological Society of America, 83rd Annual Meeting. Abstracts: 192.
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170. Ely, J.S., & **Gibson, D.J.**, 1999. The flora of shale glades, Union County, Illinois. Transactions of the Illinois State Academy of Science, 90 (supplement): 49.

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174. **Gibson, D.J.** Newman, J.A., Dado, R.G., Hickman, A., & Abner, M. 1999. Nitrogen effects on the response of the tall-fescue (*Festuca arundinacea*) – endophyte (*Neotyphodium coenophialum*) mutualism to elevated CO<sub>2</sub>. British Ecological Society, Winter & Annual General Meeting. Programme & Abstract: 48.
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176. Johnson, S.W., Ely, J.S., Middleton, B.A., & **Gibson, D.J.** 1999. Population dynamics of small mammals in relation to plant succession. Transactions of the Illinois State Academy of Science, 90 (supplement): 78.
177. Mathis, M.J., Middleton, B.A., & **Gibson, D.J.** 1999. Herbivory and old-field succession. I. The seed bank. Transactions of the Illinois State Academy of Science, 90 (supplement): 47.
178. Mathis, M.J., Middleton, B.A., & **Gibson, D.J.** 1999. Herbivory and old-field succession. I. The seed bank. 1999. Ecological Society of America, 84<sup>th</sup> Annual Meeting, Abstracts, 142.
179. Ramage, C.A., Ely, J.S., Middleton, B.A., & **Gibson, D.J.** 1999. Effects of old field succession on crayfish distribution patterns. Transactions of the Illinois State Academy of Science, 90 (supplement): 78.
180. Seaby, H.A., Ely, J.S., **Gibson, D.J.**, & Middleton, B.A. 1999. Early competition between native and non-native grasses. Transactions of the Illinois State Academy of Science, 90 (supplement): 68.
181. Spyreas, G., & **Gibson, D.J.** 1999. The effects of fungal endophytes in grasses on community diversity. Transactions of the Illinois State Academy of Science, 90 (supplement): 47.
182. Brandon, A. & **Gibson, D.J.** 2000. Effects of *Lespedeza cuneata*, an introduced species, on soil nutrient status in the natural landscape. ASB Bulletin 47: 210.
183. Emmert, S.Y., Middleton, B.A., & **Gibson, D.J.** 2000. Effects of soil nutrients and pH on species richness in a lowland old field in Carbondale, IL. Transactions of the Illinois State Academy of Science, 93 (supplement): 83.
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186. **Gibson, D.J.**, & Taylor, I. 2001. Morphological variation in populations of *Festuca arundinacea* in England. Ecological Society of America, 86<sup>th</sup> Annual Meeting, Abstracts, 282.
187. Ely, J.S., **Gibson, D.J.**, & Connolly, J. 2001. Multispecies competition among core, intermediate, and satellite species: A new approach. Ecological Society of America, 86<sup>th</sup> Annual Meeting, Abstracts, 276.

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189. **Gibson, D.J.**, Spyreas, G., & Benedict, J. 2002. Life history of *Microstegium vimineum* (Poaceae), an invasive exotic in southern Illinois. Ecological Society of America, 87<sup>th</sup> Annual Meeting, Abstracts, 355.
190. Toler, J.J.W., **Gibson, D.J.**, Ebbs, S.D. & Ferreira, J. 2003. Allelopathic effects of an exotic perennial *Lespedeza cuneata* on plants in a successional old field. 95<sup>th</sup> Annual Meeting, Transactions of the Illinois State Academy of Science, Supplement to Vol 96: 48.
191. Chandy, S., **Gibson, D.J.**, & Robertson, P.A. 2003. Partitioning of species diversity and vegetation patterns at different scales in the Shawnee National Forest. Ecological Society of America, 88<sup>th</sup> Annual Meeting, Abstracts, 61.
192. **Gibson, D.J.**, Middleton, B.A., Foster, K., Honu, Y.A.K., Hoyer, E., & Mathis, M. 2003. Core and satellite species dynamics in response to disturbance and fertilization during early old-field succession. Ecological Society of America, 88<sup>th</sup> Annual Meeting, Abstracts, 121.
193. Lees, E., **Gibson, D.J.**, Honu, Y.A.K., Chandy, S., & West, N. 2004. Ex-situ growth of the Illinois endangered *Calamagrostis porteri* ssp. *insperata*. Transactions of the Illinois State Academy of Science, 97 (supplement): 48 (Abstract).
194. Chandy, S., **D.J. Gibson** & P.A. Robertson. 2004. Additive partitioning of diversity through spatial scales and short temporal span across the Shawnee National Forest, Illinois. Ecological Society of America, 89<sup>th</sup> Annual Meeting, Abstracts, 89.
195. Heatherly, T, N., Collins, S.L., Whiles, M.R., **Gibson, D.J.**, Huryn, A.D., Jackson, J.K., Hall, R.O. & Palmer, M.A.. 2004. Metacommunity structure in regional assemblages of stream macroinvertebrates. Ecological Society of America, 89<sup>th</sup> Annual Meeting, Abstracts, 213.
196. Honu, Y.A.K. & **Gibson, D.J.** 2004. Response of exotic and native species along edge-to-interior gradients in the Shawnee National Forest, southern Illinois, USA. Ecological Society of America, 89<sup>th</sup> Annual Meeting, Abstracts, 228.
197. West, N.M. & **Gibson, D.J.** 2004. Analysis of microhabitats occupied by exotic species in Illinois shale barrens. Ecological Society of America, 89<sup>th</sup> Annual Meeting, Abstracts, 540.
198. Brophy, C., **Gibson, D.J.**, Wayne, P.M. & Connolly, J.. 2006. Modelling reproductive allocation in *Sinapis arvensis*. Ecological Society of America, 91<sup>st</sup>, Annual Meeting, Abstracts, 48.
199. Delong, M. K., Heatherly, T, Whiles, M.R., **Gibson, D.J.**, Collins, S.L., Huryn A.D., Jackson, J.K. & Palmer, M.A. 2006. Modeling of patch occupancy patterns in stream insect metacommunities: toward an understanding of factors influencing the distribution of stream insects. Ecological Society of America, 91<sup>st</sup>, Annual Meeting, Abstracts, 93.
200. **Gibson, D.J.**, Wood, A.J., Young B.G., Connolly, J., Kirwan L., Millar K. & Ely, J. 2006. Quantifying multispecies interactions between crops (soybean: *Glycine max*) and weeds: a new approach. Ecological Society of America, 91<sup>st</sup>, Annual Meeting, Abstracts, 135.
201. Hansen, M. J., & **Gibson, D.J.** 2006. Is ecological restoration successful? An assessment of a prairie restoration in northern Illinois, US. Ecological Society of America, 91<sup>st</sup>, Annual Meeting, Abstracts, 155.
202. West, N. M., **Gibson, D.J.** & Minchin, P.R. 2006. Exotic species microhabitats in Illinois shale barrens. Ecological Society of America, 91<sup>st</sup>, Annual Meeting, Abstracts, 417.
203. Delong, M.K. & Gibson, D.J. 2007. Vascular plant metapopulation dynamics and metacommunity structure within prairie-like forest openings in southern Illinois. Ecological Society of America, 92<sup>nd</sup> , Annual Meeting, Society for Ecological Restoration 18<sup>th</sup> International Conference, Abstracts. ESA Bulletin, Supplement. DOI: 10.1890/0012-9623(2008)89[17a:AMA]2.0.CO;2

204. Inczauskis, J.R., Hacker, M.S., Battaglia, L.L. & Gibson, D.J. 2007. An exotic species database for determining the distribution of exotic plants in southern Illinois. Ecological Society of America, 92<sup>nd</sup>, Annual Meeting, Society for Ecological Restoration 18<sup>th</sup> International Conference, Abstracts. ESA Bulletin, Supplement. DOI: 10.1890/0012-9623(2008)89[17a:AMA]2.0.CO;2.
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206. Brophy, C., D.J. Gibson, & Connolly, J. 2008. Statistical issues in analyzing the relationship between reproductive output and size. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. Abstracts: <http://eco.confex.com/eco/2008/techprogram/>.
207. Gage, K.L., Gibson, D.J., Matthews, J.L., Young, B.G., Owen, M.D., Wilson, R.G., Weller, S.C., Johnson, W.G., Shaw, D.R., & Jordan, D.L. 2008. The effect of glyphosate-resistant cropping systems on management of weed species diversity and herbicide resistance. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. Abstracts: <http://eco.confex.com/eco/2008/techprogram/>.
208. Lambert, A.M., S.G. Baer, & Gibson, D.J. 2008. Intraspecific variation in physiology and productivity of dominant C<sub>4</sub> grass species in a prairie restoration. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. Abstracts: <http://eco.confex.com/eco/2008/techprogram/>.
209. Reed, L.K., S.G. Baer, & Gibson, D.J. 2008. Competitive equivalency of cultivar and non-cultivar dominant prairie grasses in an experimental restoration. Ecological Society of America, 93<sup>rd</sup> Annual Meeting. August 3<sup>rd</sup> – 8<sup>th</sup>, 2008, Milwaukee, Wi. Abstracts: <http://eco.confex.com/eco/2008/techprogram/>.
210. Reed, L.K., S.G. Baer, & Gibson, D.J. 2009. Competitive equivalency of cultivar and non-cultivar dominant prairie grasses in an experimental restoration. Ecological Society of America, 94<sup>rd</sup> Annual Meeting. August 2<sup>nd</sup> – 7<sup>th</sup>, 2009, Albuquerque, NM Abstracts: <http://eco.confex.com/eco/2009/techprogram/P19454.HTM>.
211. Gage, K.L., D.J. Gibson, & B.G. Young. Survival and reproduction of glyphosate (GR) and – susceptible (GS) *Conyza Canadensis* (L.) Conq. (Asteraceae). Ecological Society of America, 94<sup>rd</sup> Annual Meeting. August 2<sup>nd</sup> – 7<sup>th</sup>, 2009, Albuquerque, NM Abstracts: <http://eco.confex.com/eco/2009/techprogram/P18473.HTM>.
212. Donatelli, J.M., **Gibson, D.J.**, Renzaglia, K., Henson, H., Mumba, F., Sipes, S., & K. Schachel. 2010. Bridging the gap, building the future: STEM fellows teaching global change in primary education. Ecological Society of America, 95<sup>th</sup> Annual Meeting. August 2<sup>nd</sup> – 6<sup>th</sup>, 2010, Pittsburgh, PA. <http://eco.confex.com/eco/2010/techprogram/P24279.HTM>
213. **Gibson, D.J.**, Allstadt, A., & S.G. Baer. 2010. Effects of genetic diversity of foundation species on community diversity: predictions tested by simulation modelling. Ecological Society of America, 95<sup>th</sup> Annual Meeting. August 2<sup>nd</sup> – 6<sup>th</sup>, 2010, Pittsburgh, PA. <http://eco.confex.com/eco/2010/techprogram/P23729.HTM>
214. Jones, D., Gustafson, D.J., **Gibson, D.J.**, & S.G. Baer. 2010. *Chamaecrista fasciculata* and *Silphium integrifolium* show divergence in genetic structure when grown in a background of wild collected versus cultivars of the dominant grasses. Ecological Society of America, 95<sup>th</sup> Annual Meeting. August 2<sup>nd</sup> – 6<sup>th</sup>, 2010, Pittsburgh, PA. <http://eco.confex.com/eco/2010/techprogram/P25105.HTM>

215. Schmale, G.D., Battaglia, L.L., & **D.J. Gibson**. 2010. Limitations of natural history data in a revisitation study of non-native invasive plants. Ecological Society of America, 95<sup>th</sup> Annual Meeting. August 2<sup>nd</sup> – 6<sup>th</sup>, 2010, Pittsburgh, PA. <http://eco.confex.com/eco/2010/techprogram/P25734.HTM>
215. Ekmekci, A., Aqazade, M., Papakonstantinou, A., Orcan, B., Catanese, D., Callard, C., Cerosaletti, C., Daley, M., Rushton, G., Reid, J., **Gibson, D.**, Renzaglia, K., McGraw, R., Sheppard, P., Head, M., Harel, G., & Soto, O. 2022. The associations of social and motivational factors to science and mathematics teacher retention. *Proceedings of Society for Information Technology & Teacher Education International Conference (2022)*. San Diego, CA: Association for the Advancement of Computing in Education. Retrieved December 7, 2022 from <https://www.learntechlib.org/primary/p/220830/>. Ekmekci, A., Aqazade, M., Callard, C., **Gibson, D.**, Rushton, G., & McGraw, R. The role of self-efficacy, leadership, school-work environment, diversity beliefs, and social network in teacher retention. *Proceedings of the 44<sup>th</sup> Conference of the North American Chapter of the Psychology of Mathematics Education*. Philadelphia, PA: PME.

### Unpublished Theses:

1. **Gibson, D.J.** 1979. Environmental reconstruction based on the identification of plant macrofossils from the Quaternary river gravels at Brook, Isle of Wight. Honours Thesis, University of Reading.
2. **Gibson, D.J.** 1981. Plant communities and the potential for ecotypic differentiation on lead and zinc mine spoils in NE Oklahoma. Masters Thesis, University of Oklahoma.
3. **Gibson, D.J.** 1984. Small-scale patterns and soil heterogeneity in grassland. Ph.D. Dissertation, University of Wales.

### Manuscripts in Review or Revision:

1. Barfknecht, D.F., **D.J. Gibson**, & Hiekens, A. *In review*. Temporal changes in spatial scale and autocorrelation structure of forest openings based on taxonomic, phylogenetic, and functional turnover. *In review, Acta Oecologica*.
2. Eduardo-Palomino, F., **Gibson, D.J.**, Barberá, P., Trillo, F., Castro, J., De La Torre, M.I., & Walters, S. A. *In review*. International Biological Flora: *Festuca dolichophylla* J. Presl. *In review J. Ecol*.
3. Ekmekci, A., Aqazade, M., **Gibson, D.J.**, & Rushton, G. *in review*. Measuring teachers' motivational and behavioral traits: validation of instruments for professional development and program evaluation. *In review AERA Open*.
4. Ren, Z., **D.J. Gibson**, K.L. Gage, B.G. Young, M.D.K. Owen, J.L. Matthews, D.L. Jordan, D.R. Shaw, S.C. Weller, R.G. Wilson. Functional composition of the soil seedbank reveals weed trait gradients between hardiness zones in glyphosate-resistant cropping systems in the United States. *In review Pest Management Science*.
5. Sytsma, J., Galliart, M., Hefley, T., Smith, A., Baer, S.G., **Gibson, D.J.**, Tetreault, H., Hartung, E., & L. Johnson. Climate-driven ecotypes shows potential adaptation to rainfall in a foundation grass in the US Great Plains. *In review Nature Ecology & Evolution*.

### Manuscripts in Preparation:

1. Adeyemi, O., **Gibson, D.J.**, Schoonover, J., Six, J., & A. Sadeghpour. In prep. Retaining wheat cover crop residue creates hotspots for nitrous oxide emissions. For *Scientific Reports*.
2. **Gibson, D.J.**, Benda, C.D., Kiefer, G., & K. Kucera. Challenges in the establishment of a rare plant species monitoring program using community science volunteers. For *Ecological Solutions and Evidence*.
3. Eduardo-Palomino, F., Ren, Z., **Gibson, D.J.**, Gage, K.L., Grininger, J.W., Huarasa, Y., Llanos, J., & S.A. Walters. Altiplano grasslands inferno: The consequences of uncontrolled fires on plant abundance and phylogenetic diversity. For *Fire Ecology*.
4. **Gibson, D.J.**, Barfknecht, D.F., Baer, S.G., Gallart, M., Sytsma, J., Ren, Z., & Johnson, L. in review. Diversity-productivity relationships are dependent upon location and ecotypes of the dominant species growing across a precipitation gradient. For *Journal of Ecology*.

## Service:

### 1. Professional Society Offices Held.

Editor. *Journal of Ecology*, British Ecological Society. (Associate Editor 1992-1998; Senior Editor 1998- 2012, 2020-2022, Executive Editor 2013-2019).

British Ecological Society, Publications (formerly Journals) Committee Member. 1998 – 2019.

Subject Matter Editor, Plant Communities and Vegetation Analysis. *Bulletin of the Torrey Botanical Club*, Torrey Botanical Club (1991- 1996).

Editorial Board. *Journal of Vegetation Science*. (1997 – present).

Editorial Board. *Sustainability* (2017-).

### 2. Consultation and Area Service.

Green Earth, Inc. A not-for-profit environmental group dedicated to land conservation in the Carbondale area (Board Member 1999 – 2020, Vice-President 2004-7, 2011 – 2012, President 2013 - 2015).

Carbondale Park District, Marberry Arboretum Advisory Committee (2003- 2005).

Consultant, C-K Associates Environmental and Engineering Consultants, Inc., Louisiana - Responded to a request for statements of qualifications for professional engineering services to implement the Hurricane Opal poststorm beach and dune recovery strategic management plan solicited by the Florida, Department of Environmental Protection (1996).

External review of PhD dissertation, La Trobe University, Australia (1996).

Illinois Nonnative Species Council. Executive Board Member (2021 - ).

Memphis University: Letter of evaluation for Dr. Scott Franklin's dossier for promotion to Associate Professor. 2002.

National Park Service. Development of a Protocol for Vegetation Monitoring of Atlantic and Gulf Coast Parks (1993).

Nomination Letter on behalf of Dr. Tom Bragg, University of Omaha, Award for Distinguished Research of Creative Activity. 1996 & 1999.

Nomination Letter on behalf of Dr. Brian McCarthy, University of Ohio, Award for Distinguished Researcher, 1998 & 2000.

University of Georgia: Letter of evaluation for Dr. Chris Peterson's dossier for promotion to Associate Professor. 2002.

University of Massachusetts: Letter of evaluation for Dr. Peter Alpert's dossier for promotion to Full Professor. 1999.

Wichita State University: Letter of evaluation for Dr. Gregory Houseman's dossier for promotion to Full Professor. 2020.

Poster Judge, SIUC University Womens Professional Advancement, "Celebrating Scholarship Through Posters". 1996.

Science Fair Judge, Giant City High School. 1996 – 1998.

Textbook review of Environmental Science: A Global Concern, 3/e for Wm. C. Brown Publishers (1993-4).

### 3. Professional Society Service.

Manuscripts reviewed for the following journals (in addition to those reviewed as editor of *Bulletin of the Torrey Botanical Club*, *Journal of Ecology*, *Journal of Vegetation Science*, and *Sustainability*):

Annals of the Missouri Botanical Garden  
American Journal of Botany  
American Midland Naturalist  
Biological Invasions  
BioScience  
Biotropica  
Canadian Journal of Botany  
Conservation Biology  
Global Ecology & Biogeography  
Ecology  
Ecology Letters  
Ecoscience  
Journal of Applied Ecology  
Journal of Environmental Quality  
Methods in Ecology and Evolution  
Natural Areas Journal  
Northwestern Naturalist (Guest editor, 2009).  
Plant Ecology  
Plants  
Prairie Naturalist  
Restoration Ecology  
Sustainability  
Tall Timbers Fire Ecology Conference Proceedings  
Transactions of the Wisconsin Academy of Sciences  
Vegetatio

Research proposals reviewed for the following organizations:

United States Department of Agriculture  
National Science Foundation (at least 2 proposals per year since 1992).  
Fonds de la Recherche Scientifique-FNRS, Belgium (2015- present).

### 4. Major University Service or Activity.

## UNIVERSITY COMMITTEES

Core Curriculum Executive Council (2020 - 2023).  
Director, Center for International Education Search Committee (2017).  
Provost and Vice Chancellor for Academic Affairs Search Committee (2011).  
Excellence Through Commitment Awards Program, University-level Outstanding Scholar Award Selection Committee (2009 – 2011, 2016, Committee Chair 2019).  
Judicial Review Board (2010 – 2012).  
Master's Fellowship Panel (1995 – 1998).  
Teaching Excellence in Science and Mathematics (1998 – 2002).  
Research Development and Administration Faculty Development Review Committee for Biological Sciences (1999 – 2001, 2008).  
Teacher Education Advisory Committee (1999 – 2002).

## COLLEGE OF SCIENCE COMMITTEES

Outstanding Researcher Award Committee (1995 – 2003, 2007- (Chair 2010)  
College Curriculum Committee (1997 – 2003 (excused Spring 1999 because of sabbatical leave). Committee Chair 2000-2001).  
College Promotion and Tenure Committee (2001-2004, 2011 - 2022).  
Life Science Task Force Committee (2010)  
Weed Science position selection committee (2014)

## DEPARTMENT SERVICE

Plant Biology Program Coordinator (2019-)  
Plant Developmental Biology Search Committee Chair (2019)  
Acting Chair, Search Committee Chair (2016)  
Assistant Chair (2004 - 2008).  
Awards/Graduate Program Committee (2002 – 2004, 2006)  
Curriculum Committee (1992, 1995 Chair in Spring 1994, ex-officio 1999)  
Director of Graduate Studies (2011 - 2023).  
Evaluation and Awards Committee (1992)  
Planning Committee ( 1994 – 1995, 1999, 2002, 2004-2010, Chair, Fall 1996 – Spring 1997, Chair Fall 2001)  
Graduate Program Committee, Chair. (2002)  
Graduation/Convocation (2001)  
Greenhouse and Growth Chamber Committee (1998, 2017-2019)  
Ecosystem Ecologist search committee, Chair (2003).  
External Chair search committee (2000)  
Conservation Biologist search committee (2000-2001)  
Safety/Equipment/Space Committee (2004-2005).  
Search Committee – systematist (2004 – 2005).  
Space Committee (2001- 2002, 2005, 2009-2010)  
Ad-hoc committee to determine criteria for a search for an External Chair (1999)

Ad-hoc committee to formulate recommendations regarding a potential merger between the Departments of Plant Biology and Zoology (1998).

Ad-hoc committee to formulate policy recommendations regarding internships for graduate students (1995).

Ad-hoc committee to plan PLB 337 Ecology Field Lab (1993)

Ad-hoc committee to determine criteria for Plant Molecular Physiologist position (1993)

Ad-hoc Plant Biology Computer Lab Committee (1993)

Department of Zoology, Quantitative Ecologist search committee (2000).

Wetlands Biologist Search Committee (2002).