

# Timothy L. Dickson

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## EDUCATION

Ph.D. in Ecology and Evolutionary Biology, Main advisor: Dr. Bryan L. Foster,  
University of Kansas 2006, Phi Kappa Phi

B.A. in Biology with a concentration in Environmental Studies, St. Olaf College 1999,  
cum laude with departmental distinction

## APPOINTMENTS

### University of Nebraska Omaha (2013-present)

Assistant professor: Teaching and performing research on prairie restoration and plant diversity

### W.K. Kellogg Biological Station, Michigan State University (2011-2013)

Research associate: Worked primarily with Dr. Katherine Gross

### Missouri Botanical Garden (2011)

Research associate: Worked primarily with Dr. George Yatskievych

### Tyson Research Center, Washington University in St. Louis (2009-2010)

Field station staff scientist: Worked primarily with Dr. Jon Chase

### Iowa State University (2005-2008)

Post-doctoral research associate: Worked primarily with Dr. Brian Wilsey

### University of Kansas (2000-2006)

Ph.D. student: Primarily advised Dr. Bryan Foster with Drs. Craig Freeman, Kelly Kindscher, Helen Alexander, and J. Chris Brown also serving on dissertation committee

### MacArthur Agro-Ecology Research Center, Archbold Biological Station Florida (2000)

Research internship: Advised by Dr. Patrick Bohlen

### Cedar Creek Natural History Area, University of Minnesota (1999)

Research internship: Advised by Dr. Charles Mitchell

## PEER-REVIEWED PUBLICATIONS (h-index = 14; 14 publications cited 14+ times)

21) Edens-Meier, R.M., G. Brown, J. Zweck, M. Arduser, J. Edens, T.L. Dickson, H. Nonnenmacher, E. Westhus, and P. Bernhardt. *Accepted*. Reproductive ecology of *Asclepias meadii* Torr. (Apocynaceae), a federally threatened species. *The Journal of the Torrey Botanical Society*.

- 20) Stahlheber, K.A., B. Watson, **T.L. Dickson**, R. Disney, K.L. Gross. 2016. Balancing biofuel production and biodiversity: Harvesting frequency effects on production and community composition in planted tallgrass prairie. *Biomass and Bioenergy* 92: 98-105.
- 19) **Dickson, T.L.** and K.L. Gross. 2015. Can the Results of Biodiversity-Ecosystem Productivity Studies Be Translated to Bioenergy Production? *PLoS ONE* 10: e0135253.
- 18) **Dickson, T.L.**, G.G. Mittelbach, H.L. Reynolds, and K.L. Gross. 2014. Height and clonality traits determine plant community responses to fertilization. *Ecology* 95:2443–2452.
- 17) Werling, B.P., **T.L. Dickson**, R.I. Isaacs, H. Gaines, C. Gratton, K.L. Gross, H. Liere, C.M. Malmstrom, T.D. Meehan, L. Ruan, B.A. Robertson, G.P. Robertson, T.M. Schmidt, A.C. Schrotenboer, T.K. Teal, J.K. Wilson, and D.A. Landis. 2014. Perennial grasslands enhance biodiversity and multiple ecosystem services in bioenergy landscapes. *Proceedings of the National Academy of Sciences* 111:1652-1657.
- 16) Hallett, L.M., J.S. Hsu, E.E. Cleland, S.L. Collins, **T.L. Dickson**, E.C. Farrer, L.A. Gherardi, K.L. Gross, R.J. Hobbs, L. Turnbull, and K.N. Suding. 2014. Biotic mechanisms of community stability shift along a precipitation gradient. *Ecology* 95:1693-1700.
- 15) **Dickson, T.L.** and K.L. Gross. 2013. Plant community responses to long-term fertilization: changes in functional group abundance drive changes in species richness. *Oecologia* 173:1513-1520.
- 14) Cleland, E.E., S.L. Collins, **T.L. Dickson**, E.C. Farrer, K.L. Gross, L.A. Gherardi, L.M. Hallett, R.J. Hobbs, J.S. Hsu, K.N. Suding, and L. Turnbull. 2013. Sensitivity of grassland plant community composition to spatial versus temporal variation in precipitation. *Ecology* 94:1687-1696.
- 13) **Dickson, T.L.**, J.L. Hopwood, and B.J. Wilsey. 2012. Do priority effects benefit invasive plants more than native plants? An experiment with six grassland species. *Biological Invasions* 14: 2617-2624.
- 12) **Dickson, T.L.** and B.L. Foster. 2011. Fertilization decreases plant biodiversity even when light is not limiting. *Ecology Letters* 14: 380-388.
- 11) Foster, B.L., E.J. Questad, C.D. Collins, C.A. Murphy, **T.L. Dickson**, and V.H. Smith. 2011. Seed availability constrains plant species sorting along a soil fertility gradient. *Journal of Ecology* 99: 473-481.
- 10) **Dickson, T.L.** and C.E. Mitchell. 2010. Herbivore and fungal pathogen exclusion affects the seed production of four common grassland species. *PLoS ONE* 5: e12022.
- 9) **Dickson, T.L.**, B.J. Wilsey, R.R. Busby, and D.L. Gebhart. 2010. *Melilotus officinalis* (yellow sweetclover) causes large changes in community and ecosystem processes in both the presence and absence of a cover crop. *Biological Invasions* 12: 65-76.

- 8) **Dickson, T.L.** and W.H. Busby. 2009. Forb species establishment increases with decreased grass seeding density and with increased forb seeding density in a northeast Kansas, USA experimental prairie restoration. *Restoration Ecology* 17: 597-605.
- 7) **Dickson, T.L.** and B.J. Wilsey. 2009. Biodiversity and tallgrass prairie decomposition: the relative importance of species identity, evenness, richness, and micro-topography. *Plant Ecology* 201: 639-649.
- 6) **Dickson, T.L.** and B.L. Foster. 2008. The relative importance of the species pool, productivity, and disturbance in regulating grassland plant species richness: a field experiment. *Journal of Ecology* 96: 937-946.
- 5) **Dickson, T.L.**, B.J. Wilsey, R.R. Busby, and D.L. Gebhart. 2008. Plant composition alters vehicular disturbance effects in Kansas, USA. *Environmental Management* 41: 676-684.
- 4) Foster, B.L. and **T.L. Dickson**. 2004. Grassland diversity and productivity: The interplay of resource availability and propagule pools. *Ecology* 85: 1541-1547.
- 3) Foster, B.L., **T.L. Dickson**, C. Murphy, I.S. Karel, and V.H. Smith. 2004. Propagule pools mediate community assembly and diversity-ecosystem regulation along a grassland productivity gradient. *Journal of Ecology* 92: 435-449.
- 2) Foster, B.L., V.H. Smith, **T.L. Dickson**, and T. Hildebrand. 2002. Invasibility and compositional stability in a grassland community: relationships to diversity and extrinsic factors. *Oikos* 99: 300-307.
- 1) **Dickson, T.L.**, M. Swift, and H. Shierholz. 2000. A comparison of stream segment and quadrat mussel sampling techniques. *BIOS* 71: 42-49.

## **FUNDING / HONORS**

- PI with Dr. James Hayes from UNO Geography / Geology for \$22,894 grant from UNO Fund for Investing in the Research Enterprise “A closer look: How does spatial resolution change remotely sensed estimates of bioenergy and correlated ecological variables?” (2015-)
- Mentor for two \$2500 grants from UNO Fund for Undergraduate Scholarly Experiences “Establishment of Milkweed Seeds under Different Conditions” (2016)  
“The Effects of Competition for Water and Light on the Establishment of Prairie Wildflower Seedlings” (2015)
- PI for \$5,000 grant from UNO University Committee on Research and Creative Activity “Effects of Prairie Fire and Mowing on Soil Temperature” (2013)
- PI for \$10,000 grant from W.K. Kellogg Foundation “Alfalfa Persistence and Grazing Intensity in a Grass Forage Mix” (2012)
- Co-PI with Dr. Tiffany Knight for \$721,000 grant from National Science Foundation “Mechanisms of Species-Area Relationships in Ozark Glades” (2010-2015)

- PI for \$7,500 glade restoration grant from Missouri Department of Conservation “Glade Restoration at West Tyson County Park in Collaboration with Tyson Research Center, Shaw Nature Reserve, and Community Volunteers” (2009)
- \$1,000 travel grant to Ecological Society of America meeting from Strategic Environmental Research and Development Program (2005)
- \$14,000 dissertation fellowship from the University of Kansas Graduate School (2004)
- Initiated into Phi Kappa Phi Honor Society (2004)
- \$500 University of Kansas Field Stations and Ecological Reserves Small Grant (2003)
- Braun Award for best student poster at national Ecological Society of America meeting (2003)
- \$600 Tri-Beta Biological Honor Society undergraduate research grant (1998)

## **TEACHING**

- Instructor: “Restoration Ecology (BIOL 4030)” for University of Nebraska Omaha undergraduate and graduate students (2014-)
- Instructor: “Ecology (BIOL 3340 / 8345)” for University of Nebraska Omaha undergraduate and graduate students (2014-)
- Instructor: “Introductory Biology II (Organismal) (BIOL 1750)” for University of Nebraska Omaha undergraduate students (2013-)
- Instructor: “Practical Skills in Environmental Biology Research” for Washington University undergraduate students (2010)
- Instructor: “Experimental Ecology” for Washington University undergraduate students (2009)
- Guest Lecturer: “Environmental Studies” for Des Moines Area Community College (2007-2008)
- Guest Lecturer: “Principles of Biology (Organismal)” for Iowa State University undergraduate students (2006-2008)
- Teaching Assistant: “Principles of Organismal Biology Laboratory” for University of Kansas undergraduate students (2002-2004)
- Teaching Assistant: “Biometry (Introductory Statistics)” for University of Kansas graduate students (2001-2002)
- Teaching Assistant: “Non-Majors Introductory Biology Laboratory” for University of Kansas undergraduate students (2001-2002)

## **MENTORING ACTIVITIES**

- Mentored two UNO Biology M.S. students and two undergraduate students on independent research projects (2014-present)
- Mentored a Research Experiences for Undergraduates (REU) and 2 undergraduate students on their research projects related to plant diversity and biofuels (2013).
- Helped to mentor a M.S. and REU student on their biofuel research projects (2012).
- Mentored two REU students on their independent research projects focused on ecology of glade plants and ecosystem characteristics at Washington University (2010).

- Supervised four high school students from urban St. Louis on research projects at Washington University (2009-2010)
- Coordinated program that paired 24 high school students with research mentors at Washington University as part of the National Science Foundation Research Fellowship program at Tyson Research Center (2009-2010).
- Hired and supervised undergraduates to assist with maintaining and sampling field experiments at Iowa State University (2006-2008).
- Supervised undergraduates who assisted with maintaining experiments and collecting data at the University of Kansas (2002-2004).

## **SYNERGISTIC ACTIVITIES**

### **Journal Reviewer**

- Agronomy Journal; American Journal of Botany; Applied Vegetation Science; Biological Invasions; Community Ecology; Ecography; Ecosphere; Global Change Biology; Journal of Applied Ecology; Journal of Biogeography; Journal of Ecology; Journal of Vegetation Science; Oecologia; Plant Ecology; Plant Ecology & Diversity; PLoS ONE; Restoration Ecology

### **Current Grant Reviewer**

- U.S. National Science Foundation: Division of Environmental Biology
- Weaver Grants (The Nature Conservancy)

### **Past Reviewer**

- Netherlands Organization for Scientific Research (2009)
- Biology textbook chapters for Jones and Bartlett publisher (2009)

### **Professional Memberships**

- Society for Ecological Restoration (2002-present)
- Ecological Society of America (2000-present)
- The Nature Conservancy (1998-present)
- American Society of Agronomy (2006-2009)

### **Service and Outreach**

- Reviewer for UNO Graduate Research and Creative Activity (GRACA) grants (2014-present)
- Moderator for University of Nebraska Omaha Student Research and Creative Activity Fair (2014-present)
- Presented Fire Effects on Plant Diversity and Soil Temperature work to Tallgrass Prairie & Oak Savanna Fire Science Consortium (2015)
- Presented to Michigan Wild Ones Native Plant Organization (2013)
- Presented at Kellogg Biological Station Field Day (2012)
- Judge for Ecological Society of America Braun poster award (2010-present)
- Presented Glade Restoration work to Missouri Native Plant Society (2010)
- Led Plant Section of St. Louis BioBlitz (2010)
- Organized Symposium on Invasive Species at American Society of Agronomy (2009)

- Attended and voted at University of Kansas Ecology and Evolutionary Biology faculty meetings as Graduate Student Voting Representative (2002-2004)
- Co-Organized New Graduate Student Orientation for University of Kansas Ecology and Evolutionary Biology Department (2001-2003)
- Founder and first president of St. Olaf College Environmental Coalition student organization (1998-1999)

**STATISTICAL SKILLS:** Structural Equation Modeling; Multivariate Statistics (MANOVA, Multiple Linear Discriminant Function, Cluster Analysis, etc.); Multiple-Linear Regression; basic statistics (ANOVA, Regression, Chi-Square test, etc.); basic Bayesian and Maximum Likelihood statistics

**COMPUTER SKILLS:** SAS, R, SPSS, MINITAB, PC-ORD, and LISREL statistical programs; Microsoft web page editors, Access, Excel, PowerPoint, and Word; ArcView and ArcGIS; Adobe Photoshop; familiarity with GPS systems; C++, SCHEME, and Visual Basic programming languages

**SECOND LANGUAGE SKILLS:** Competent in reading, writing, and speaking German

## **INVITED AND CONTRIBUTED FIRST-AUTHOR PRESENTATIONS**

### **2016**

Contributed oral presentation – Nutrient Network Workshop

### **2015**

Contributed oral presentation - National meeting of the Ecological Society of America

Invited oral presentation – University of Nebraska-Lincoln Extension’s EUREKA conference

### **2014**

Seminar speaker – Wichita State University Department of Biological Sciences

### **2013**

Contributed oral presentation - National meeting of the Ecological Society of America

Seminar speaker – University of Nebraska, Lincoln Biology Department

Seminar speaker – Bowling Green State University, Ohio Biology Department

Seminar speaker – University of Nebraska, Omaha Biology Department

Seminar speaker – University of Texas, El Paso Biology Department

### **2012**

Invited oral presentation – National meeting of the Ecological Society of America

Poster presentation – Great Lakes Bioenergy Research Center Retreat

Seminar speaker – Grand Valley State University, Michigan Biology Department

Seminar speaker – North Dakota State University Biology Department

Seminar speaker – University of Texas, Arlington Biology Department

### **2011**

Seminar speaker - University of Oklahoma Botany and Microbiology Department

Seminar speaker - University of Nebraska, Omaha Biology Department

**2010**

Contributed oral presentation - National meeting of the Ecological Society of America

**2009**

Invited oral presentation - National meeting of the American Society of Agronomy

**2008**

Contributed oral presentation - National meeting of the American Society of Agronomy

Contributed oral presentation - North American Prairie Conference

**2007**

Poster presentation - National meeting of the Ecological Society of America

Contributed oral presentation - National meeting of the American Society of Agronomy

**2006**

Contributed oral presentation - National meeting of the Ecological Society of America

Contributed oral presentation - National meeting of the American Society of Agronomy

**2005**

Contributed oral presentation - National meeting of the Ecological Society of America

**2004**

Contributed oral presentation - National meeting of the Ecological Society of America

**2003**

Contributed oral presentation - National meeting of the Ecological Society of America

Contributed oral presentation - Midwest Ecology and Evolution Conference

Poster presentation - USA meeting of the Society for Ecological Restoration

**2002**

Poster presentation - National meeting of the Ecological Society of America

**1999**

Poster presentation - National meeting of the North American Benthological Society