

## John M. Briggs

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### EDUCATION:

Ph.D. Zoology. 1985. University of Arkansas. Fayetteville, AR.  
M.S. Biology (With Honors). 1980. Pittsburg State University Pittsburg, KS.  
B.S. Biology (Minor: Chemistry). 1978. Pittsburg State University Pittsburg, KS.

### RESEARCH INTERESTS:

Plant Ecology especially the role of fire and grazing in grasslands; The expansion of woody vegetation into grasslands; Landscape Ecology; Influence of humans on ecosystems; The use of Remote Sensing and Geographical Information Systems in Ecosystem Research; Ecological Data Management.

### PROFESSIONAL EXPERIENCE:

Director Konza Prairie Biological Field Station 2008-present.  
Professor of Biology. Kansas State University 2008-present.  
Professor. School of Life Sciences. Arizona State University. 2004–2008  
Charles Bullard Fellowship. Harvard University, Harvard Forest. 2005-2006.  
Associate Professor. Department of Plant Biology (School of Life Science 01 July 2003).  
Arizona State University. 1999 to 2004.  
Research Professor. Division of Biology. Kansas State University. 1998-1999.  
Research Associate Professor. Division of Biology. Kansas State University. 1991-1998  
Affiliated Professor. Department of Geography. Kansas State University. 1991-1999.  
Senior Scientist. Division of Biology. Kansas State University. 1987-1991.  
Research Associate. Division of Biology. Kansas State University. 1984-1986  
Lecturer. Department of Zoology. University of Arkansas. 1983.

### ADMINISTRATIVE EXPERIENCE:

Director Konza Prairie Biological Field Station 2008-present.  
Co-Director. Central Arizona Phoenix: Long-Term Ecological Research Program. 2006-2007.  
Department Head. Plant Biology. Arizona State University. 2002–2003.  
Founding Director. Arizona State University GIS Certificate Program. 2000-2005.  
Program Director. National Science Foundation--Division of Environmental Biology, Ecology Cluster. 1998–1999.  
Co-Director. Konza Prairie Long-Term Ecological Research Program. 1990-1998.

### PROFESSION SOCIETIES:

American Society for the Advancement of Science      Ecological Society of America

## **ACADEMIC TEACHING EXPERIENCE:**

Arizona State University

- **BIO 187** General Biology (Co-taught with Drs. Collins & Kinzig)
- **PLB 322** Environmental Science for Majors (Co-taught with Dr. Stromberg)
- **BIO 494** Urban Ecological Systems (Co-taught with Dr. Grimm)
- **PLB 421** Community Ecology (Co-taught with Dr. Klopatek)
- **PUP 591; PAF 591; PLB 591; GPH 591; ERS 598**; GIS Capstone
- **PLB 498**: Analytic Methods of Vegetation Cover and Change
- **PLB 498**: Ecological Data Analysis and Management
- **PLB 598** Special topics in Ecology: Grassland Ecology

Kansas State University

- **BIO 697** Landscape Ecology
- **BIO 632** Ecology Lab
- **BIO 697** Readings in Grassland Ecology

## **GRADUATE STUDENT TRAINING**

### Committees Chaired:

E.J. Raynor, Ph.D. (2015), Biology KSU; (co-chair with Anthony Joern)

Paul Killian, M.S. Division of Biology, Kansas State University (2012).

Bradley Butterfield, Ph.D. Plant Biology: ASU 2009; SoLS/CLAS Fellowship. Post-doc; K. Suiding, Berkley University; Research Assistant Professor, Northern Arizona University, Flagstaff, AZ.

Jason Walker, Ph.D. Plant Biology; ASU 2008; NSF-IGERT Fellowship; NSF- East Asia and Pacific Summer Institutes Graduate Fellowship; Assistant Professor, Florida State College at Jacksonville, FL

Art Stiles, Ph.D. Plant Biology; ASU 2005. (Co-chair with Dr. Sam Scheiner, NSF). Plant Ecologist with Florida Wildlife and Parks.

Hoski Schaafsma, M.S. Plant Biology, ASU, December 2003.

Jana Heisler; (M.S. Plant Biology; ASU, May 2003; Ph.D. 2008 Colorado State University; Post-Doc. University of Wyoming).

Greg Hoch; (Ph.D. Biology; KSU, May 2000; Assistant Professor, Department of Biology, Concordia College, Moorhead MN.)

Donna Rieck; (M.S. Biology; KSU, May 1999; USGS Technician, Minneapolis MN.)

### Committee Member:

Christopher Bang (Ph.D. Biology, ASU), Elena Ortiz-Barney (Ph.D. Plant Biology, ASU), Alex Buyantuyev (Ph.D. Plant Biology, ASU), Floyd Catchpole (M.S. Biology, KSU), John David (M.S. Plant Biology, ASU), Brett Danner (M.S. Biology, KSU), Rachel Davis (M.S. Biology, ASU), Kris Gade (Ph.D. Biology, ASU), Bret Herres (M.S. Natural Resource, ASU), Cyd Hamilton (Ph.D. Biology, ASU), Brigitte Hogan (Ph.D. Biology, ASU), Mya Kapoor (M.S. Biology, ASU), Muha Kahn (M.S. Urban Planning, ASU), Brenda Koerner (Ph.D. Plant Biology, ASU), Melissa Kruse (M.A. School of Human Evolution and Social Change, ASU), Elizabeth Larson, (Ph.D. Biology, ASU), Charles

Paradzick (M.N.S. Plant Biology, ASU), Jamie Rambo (M.S. Biology, ASU), Zak Ratajczak (Ph.D. KSU), Brad Rinquist (Ph.D. Geography, KSU), Marielo Soto (M.S. Geography, ASU), Andrew Ricketts (Ph.D. KSU), Tyler Rychener (M.S. Plant Biology, ASU), Ryan Spoonseller (Ph.D. Biology, ASU), Laura Taylor-Kraft (Ph.D. Biology, ASU)

**PUBLICATIONS:** (peer-review; † = graduate student; \* = undergraduate student)

Leis, S.A., Blocksome, C.E. Twidwell, D., Fuhlendorf, S.D, Briggs, J. M. Sanders, L.D. 2017. Juniper invasions in grasslands: research needs and intervention strategies. *Rangelands* 39: 64-72. <https://doi.org/10.1016/j.rala.2017.03.002>

Raynor<sup>†</sup>, E.J., A. Joern, A. Skibbe, M. Sowers\*, J.M. Briggs, A.N. Laws, and D. Goodin. 2017. Temporal variability in large grazer space use in an experimental landscape. *Ecosphere*. 8(1) doi:10.1002/ecs2

Raynor, E. J<sup>†</sup>, H. L. Beyer, J.M. Briggs, and A. Joern. 2017. Complex variation in habitat selection strategies among individuals driven by extrinsic factors. *Ecology and Evolution* doi:10.1002/ece3.2764.

Raynor, E. J<sup>†</sup>, A. Joern, J. Nippert, and J.M. Briggs. 2016. Foraging decisions underlying restricted space-use: fire and forage maturation effects on large herbivore nutrient uptake. *Ecology and Evolution* 6(16):5843-5853. doi:10.1002/ece3.2304

Ratajczak Z.<sup>†</sup>, Briggs J.M., Goodin D.G., Mohler R.L., Nippert J.B., Obermeyer B. 2016. Assessing the potential for transitions from tallgrass prairie to woodlands: are we operating beyond critical fire thresholds? *Rangeland Ecology & Management* 69:280-287.

Briggs, J.M., J.M. Blair, E. A. Horne. 2016. Ecohydrological and Climate Change studies at the Konza Prairie Biological Station. *Transactions of the Kansas Academy of Science* 119:5-11.

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Raynor E.J.<sup>†</sup>, Joern A, Briggs J.M. 2015. Bison foraging responds to fire frequency in nutritionally heterogeneous grassland. *Ecology* 96:1586–1597.

Ratajczak Z.<sup>†</sup>, Nippert J.B., Briggs J.M., Blair J.M. 2014. Fire dynamics distinguish grasslands, shrublands and woodlands as alternative attractors in the Central Great Plains of North America. *Journal of Ecology* 102 (6), 1374-1385.

Blair, J., J Nippert, J Briggs. 2014. Grassland Ecology. *Ecology and the Environment*, 389-423.

Hall, S., J. Trujillo<sup>†</sup>, D. Nakase<sup>†</sup>, C. Strawhacker<sup>†</sup>, M. Kruse-Peeples<sup>†</sup>, H. Schaafsma<sup>†</sup>, J.M. Briggs. 2013. Legacies of prehistoric agricultural practices within plant and soil properties across an arid ecosystem. *Ecosystems* DOI: 10.1007/s10021-013-9681-0

Ungerer, M.C., Heatherington,\* C.A., Joern, A., Towne, E.G., Briggs, J.M. 2012. Genetic variation and mating success in managed American plains bison. *Journal of Heredity* doi:10.1093/jhered/ess095.

- Knapp, A.K., J.M. Briggs and M.D. Smith. 2012. Community stability does not preclude ecosystem sensitivity to chronic resource alteration. *Functional Ecology* 26:1231-1233.
- Buchanan<sup>†</sup>, M.L. and J.M. Briggs. 2011. Phenotypic plasticity in response to short-term nutrient availability in *Cylindropuntia fulgida* (Cactaceae). *Hasteltonia* 16:91-100.
- Butterfield<sup>†</sup>, B.J. and J.M. Briggs. 2011. Regeneration niche differentiates functional strategies of desert woody plant species *Oecologia* 165:477-487.
- Butterfield<sup>†</sup>, B.J., J. Betacourt, R. Turner and J.M. Briggs. 2010. Facilitation drives 65 years of vegetation change in the Sonoran Desert. *Ecology* 91:1132-1139.
- Walker<sup>†</sup>, J.S., N.B. Grimm, J.M. Briggs, C. Gries and L. Dugan. 2009. Effects of urbanization on plant species in central Arizona. *Frontiers in Ecology and the Environment*. 7:465-470.
- Butterfield<sup>†</sup>, B.J. and J.M. Briggs. 2009. Patch dynamics of soil-biotic feedbacks in the Sonoran Desert. *Journal of Arid Environments* 73:96-102.
- Grimm, N.B., S.H. Faeth, N.E. Golubiewski, C.L. Redman, J. Wu, X. Bai, and J.M. Briggs. 2008. Global Change and the Ecology of Cities. *Science* 319:756-760.
- Knapp, A.K., J.M. Briggs, S.L. Collins, S.R. Archer, M.S. Bret-Harte, B.E. Ewers, D.P. Peters, D.R. Young, G.R. Shaver, E. Pendall, and M.B. Cleary. 2008. Shrub encroachment in North American grasslands: Shifts in growth form dominance rapidly alters control of ecosystem carbon inputs. *Global Change Biology* 14:615-623.
- Walker<sup>†</sup>, J.S., R.C. Balling, Jr. J.M. Briggs, M. Katti, P.S. Warren, and E.A. Wentz. 2008. Birds of a feather: interpolating distribution patterns of urban birds. *Computer, Environment and Urban Systems* 32: 19-28.
- Heisler<sup>†</sup>, J.L., A.K. Knapp, and J.M. Briggs. 2007. Fire and resource availability influence carbon and water relations of the C<sub>3</sub> shrub roughleaf dogwood in a mesic grassland. Pages 86-93 in R.E. Masters and K.E.M. Galley (eds.). *Proceedings of the 23rd Tall Timbers Fire Ecology Conference: Fire in grassland and Shrubland Ecosystems*. Tall Timbers Research Station, Tallahassee, Florida, USA.
- Briggs, J.M., H. Schaafsma<sup>†</sup>, and D. Trenkov<sup>†</sup>. 2007. Woody vegetation expansion in a desert grassland: Prehistoric human impact? *Journal of Arid Environment* 69: 458-472. (doi:10.1016/j.jaridenv.2006.10.012)
- Schaafsma<sup>†</sup>, H. and J.M. Briggs. 2007. Hokam silt capturing technology: Silt fields in the northern Phoenix basin. *Kiva* 72:431-457.
- Walker<sup>†</sup>, J.S., and J.M. Briggs. 2007. An object-oriented approach to urban forest mapping with high-resolution, true-color aerial photography. *Photogrammetric Engineering & Remote Sensing* 73:577-583.
- Briggs, J.M., K. A. Spielmann, H. Schaafsma<sup>†</sup>, K. W. Kintigh, M. Kruse<sup>†</sup>, K. Morehouse<sup>†</sup> and K. Schollmeyer<sup>†</sup>. 2006. Ecology needs archaeologists: Archaeology needs ecologists. *Frontiers in Ecology and the Environment* 4:180-188.
- Nippert<sup>†</sup>, J.B., A. K. Knapp and J.M. Briggs. 2006. Intra-annual rainfall variability and grassland productivity: can the past predict the future? *Plant Ecology* 184:65-74.

- Briggs, J.M., A.K. Knapp, J.M. Blair, J.L. Heisler<sup>†</sup>, G.A. Hoch<sup>†</sup>, M.S. Lett<sup>†</sup> and K. McCarron<sup>†</sup>. 2005. An ecosystem in transition: woody plant expansion into mesic grassland. *BioScience* 55:243-254.
- Heisler<sup>†</sup>, J.L., J. M. Briggs, A.K. Knapp, J.M. Blair and A. Seery\*. 2004. Shrub expansion in mesic grasslands of Central North America: an ecosystem in transition? *Ecology* 85: 2245-2257.
- Lett<sup>†</sup>, M.S., A.K. Knapp, J.M. Briggs and J.M. Blair. 2004. Influence of shrub expansion on carbon and nitrogen in a mesic grassland. *Canadian Journal of Botany* 82: 1363-1370.
- Heisler<sup>†</sup>, J. L., J.M. Briggs and A.K. Knapp. 2003. Long-term patterns of shrub expansion in a C<sub>4</sub>-dominated grassland: fire frequency and the dynamics of shrub cover and abundance. *American Journal of Botany* 90:423-428.
- Briggs, J.M., A.K. Knapp and B. L. Brock. 2002. Expansion of woody plants in tallgrass prairie: A 15-year study of fire and fire-grazing interactions. *The American Midland Naturalist* 147: 287-294
- \*van der Hoek, J. L., A.K. Knapp and J.M. Briggs. 2002. White-Tailed deer browsing on six shrub species of tallgrass prairie. *Great Plains Research* 12:141-156.
- Hoch<sup>†</sup>, G.A., J.M. Briggs and L.C. Johnson. 2002. Assessing the rate, mechanism and consequences of conversion of tallgrass prairie to *Juniperus virginiana* forest. *Ecosystems* 6: 578-586.
- Collins, S.L., S.M. Glenn and J.M. Briggs. 2002. Effect of local and regional processes on plant species richness in tallgrass prairie. *Oikos* 99: 571-579.
- Briggs, J.M., and AK Knapp. 2001. Determinants of C<sub>3</sub> forb growth and production in a C<sub>4</sub> dominated grassland. *Plant Ecology* 152:93-100.
- Knapp, A.K., J.M. Briggs and J.K. Koelliker. 2001. Frequency and extent of water limitation to primary production in a mesic temperate grassland. *Ecosystems* 4:19-28.
- Smith, C.C. and J.M. Briggs. 2001. Experimental study of the effects of species, season and density of buried seeds on their survival from fox squirrels. *Prairie Naturalist* 33: 197-208
- Hoch<sup>†</sup>, G. A. and J.M. Briggs. 1999. Expansion of eastern red cedar (*Juniperus virginiana*) in the northern Flint Hills, Kansas. Pages 9-15 In, J.T. Springer, ed. *Proceedings of the 16th North American Prairie Conference*, University of Nebraska, Kearney.
- Knapp, A.K., J.M. Blair, J.M. Briggs, S.L. Collins, D.C. Hartnett, L.C. Johnson and E.G. Towne. 1999. The keystone role of bison in North American tallgrass prairie. *BioScience* 49: 39-50.
- Olson, R.J., J.M. Briggs, J.H. Porter, G.R. Mah and S.G. Stafford. 1999. Managing data from multiple disciplines, scales, and sites to support synthesis and modelling. *Remote Sensing of the Environment* 70:99-107.

- Turner, D.P, W.B. Cohen, R.E. Kennedy, K.S Fassnacht and J.M. Briggs. 1999. Relationships between leaf area index and Landsat TM spectral vegetation indices across three temperate zone sites. *Remote Sensing of the Environment* 70:52-68.
- Collins, S.L., A.K. Knapp, J.M. Briggs, J.M. Blair, E. M. Steinauer. 1998. Modulation of diversity by grazing and mowing in native tallgrass prairie. *Science* Volume 280, Number 5364 pp. 745 - 747.
- Knapp, A.K., J.M. Blair and J.M. Briggs. 1998. Long-term ecological consequences of varying fire frequency in a humid grassland. Pages 173-178 In Teresa L. Pruden and Leonard A. Brennan (eds.) *Fire in Ecosystem Management: shifting the paradigm from suppression to prescription*. Tall Timbers Fire Ecology Conference Proceedings, No. 20. Tall Timbers Research Station, Tallahassee, FL
- Briggs, J.M., D. R. Rieck<sup>†</sup>, C. L. Turner, G. M. Henebry, D. G. Goodin and M.D. Nellis. 1997. Spatial and temporal patterns of vegetation within the Flint Hills. *Transactions Kansas Academy of Science* 100:10-20.
- Nellis, M. D. and J.M. Briggs. 1997. Modelling impact of bison on tallgrass prairie. *Transactions Kansas Academy of Science* 100:3-9.
- O'Lear<sup>†</sup>, H. T.R. Seastedt, J.M. Briggs, J.M. Blair and R.A. Ramundo. 1996. Fire and topographic effects on decomposition and nitrogen dynamics of buried wood in tallgrass prairie. *Soil Biology and Biochemistry* 28:323-329.
- Su, H., J.M. Briggs, A.K. Knapp, J.M. Blair and J.R. Krummel. 1996. Detecting spatial and temporal patterns of aboveground production in a tallgrass prairie using remotely-sensed data. 1996 International Geoscience and Remote Sensing Symposium Proceedings, IEEE (Institute of Electrical and Electronics Engineers, Inc.), Vol IV, pp. 2361 - 2365.
- Briggs, J.M. and A.K. Knapp. 1995. Interannual variability in primary production in tallgrass prairie: climate, soil moisture, topographic position and fire as determinants of aboveground biomass. *American Journal of Botany* 82:1024-1030.
- Briggs, J. M., J.T. Fahnestock<sup>†</sup>, L. Ward\* and A.K. Knapp. 1994. Aboveground biomass in tallgrass prairie: effect of time since last fire. In *Proceedings of the Thirteenth North America Prairie Conference* (R.G. Wickett, P.D. Lewis, A. Woodliffe, and P. Pratt, eds.) pp. 165-170.
- Knapp, A. K., J. K. Koelliker, J.T. Fahnestock<sup>†</sup> and J.M. Briggs. 1994. Water relations and biomass responses to irrigation across a topographic gradient in tallgrass prairie. In *Proceedings of the Thirteenth North America Prairie Conference* (R.G. Wickett, P.D. Lewis, A. Woodliffe, and P. Pratt, eds.) pp.215-220.
- \*Luft, J., J. \*Malinowski, J.M. Briggs and C.C. Smith. 1994. Odor as a factor in nut discovery by fox squirrels. *Transactions of the Kansas Academy of Science* 97: 1-6.
- \*Knight, C., J.M. Briggs and M.D. Nellis. 1994. Expansion of gallery forest on Konza Prairie Research Natural Area, Kansas. *Landscape Ecology* 9:117-125.
- Nellis, M.D., K. Lulla and J.M. Briggs. 1994. Space Shuttle photography for monitoring global change. *Pecora 12 Symposium* 532-534.

- \*Bragg, W.K., A.K. Knapp, and J.M. Briggs. 1993. Comparative water relations of seedling and adult *Quercus* species during gallery forest expansion in tallgrass prairie. *Forest Ecology and Management* 56:29-41.
- Vinton<sup>†</sup>, M.A., D.C. Hartnett, E.J. Finck, and J.M. Briggs. 1993. The interactive effects of fire, bison (*Bison bison*) grazing and plant community composition in tallgrass prairie. *American Midland Naturalist* 129:10-18.
- Gibson, D. J., T.R. Seastedt and J.M. Briggs. 1993. Management practices in tallgrass prairie: Landscape and small-scale experimental effects on species composition. *Journal of Applied Ecology* 30:247-256. [Note: Reprinted in *Ecosystem Management*, pp. 106-115, (F.B. Samson and F.L. Knopf, eds.) 1996, Springer-Verlag, pp. 462]
- Nellis, M. and J.M. Briggs. 1992. Transformed Vegetation Index for measuring spatial variation in drought impacted biomass on Konza prairie. *Trans. of the Kansas Academy of Science* 95:93-99.
- Nellis, M.D., J.M. Briggs, and H.L. Seyler. 1992. Growth and transition: Remote sensing and geographic information systems at Kansas State University. *Photogrammetric Engineering and Remote Sensing* 58:1159-1161.
- Briggs, J.M. and D.J. Gibson. 1992. Effect of burning on tree spatial patterns in a tallgrass prairie landscape. *Bulletin of the Torrey Botanical Club* 119:300-307.
- Nellis, M.D., J.D. Bathgate<sup>†</sup>, and J.M. Briggs. 1992. Geographic information system for modeling bison impact on Konza Prairie, Kansas. *GIS/LIS Proceedings* 2:618-623.
- Briggs, J.M. and A.K. Knapp. 1991. Estimating aboveground biomass in tallgrass prairie with the harvest method: Determining proper sample size using jackknifing and Monte Carlo simulations. *Southwestern Naturalist* 36:1-6.
- Briggs, J.M. and M.D. Nellis. 1991. Seasonal variation of heterogeneity in tallgrass prairie: a quantitative measure using remote sensing. *Photogrammetric Engineering and Remote Sensing* 57:407-411. 7
- Seastedt, T.R., J.M. Briggs, and D.J. Gibson. 1991. Fire frequency and nitrogen limitation of primary production in tallgrass prairie. *Oecologia* 87:72-79.
- Nellis, M.D., K. Lulla, J.M. Briggs, and C.E. Bussing. 1990. Interfacing geographical information systems and space shuttle photography for monitoring elephant impact in Botswana. *Applied Geography Conferences* 13:10-15.
- Briggs, J.M. and K.J. Smith. 1989. Acorn selection of *Peromyscus leucopus*: influence of habitat. *Journal of Mammalogy* 70:35-43.
- Briggs, J.M. and M.D. Nellis. 1989. Landsat Thematic Mapper Digital Data for predicting aboveground biomass in a tallgrass prairie ecosystem. *Proceedings of the Eleventh North America Prairie Conference*. (T.B. Bragg and J. Stubbendiech, eds.) pp. 53-55.
- Briggs, J. M., T.R. Seastedt, and D.J. Gibson. 1989. Comparative analysis of temporal and spatial variability in above-ground production in a deciduous forest and prairie. *Holarctic Ecology* 12:130-136.

- Evans, E. W., E. J. Finck, J.M. Briggs, D.J. Gibson, S.W. James, D.W. Kaufman, and T. R. Seastedt. 1989. Is fire a disturbance in grasslands? Proceedings of the Eleventh North America Prairie Conference. (T.B. Bragg and J. Stubbendiech, eds.) pp. 159-161.
- Nellis, M.D. and J.M. Briggs. 1989. The impact of spatial scale on Konza Landscape Classification using textural analysis. *Landscape Ecology* 2:93-100.
- Briggs, D.J., J.M. Briggs, and D.R. Howard. 1988. Prevalence of rabies in the striped skunk (*Mephitis mephitis*) in Kansas from 1966 to 1986. *Transactions Kansas Academy of Science*. 91:123-131.
- Nellis, M.D. and J.M. Briggs. 1988. SPOT Satellite data for Pattern Recognition on the North American Tallgrass Prairie Long-Term Ecological Research Site. *Geocarto International* 3:37-40.
- Nellis, M.D. and J.M. Briggs. 1987. Ratioed Landsat Thematic Mapper Data for classifying Konza Fire Management Landscape Units. *Applied Geography Conferences* 10:76-80.
- Briggs, J.M. 1986. Supplemental food and island populations of *Peromyscus leucopus*. *Journal of Mammalogy* 67:474-480.
- Briggs, J.M., H.A. Hays, and J.L. Racy. 1983. A five-year study (1975-1979) of the home range of the eastern cottontail rabbit (*Sylvilagus floridanus alacer*) on strip-mined land. *Transactions Kansas Academy of Science*. 86:24-30.

#### **BOOK CHAPTERS:**

- Blair J., J. Nippert and J. Briggs. 2013. Grassland Ecology. In *The Plant Sciences - Ecology and the Environment* (R. Monson, ed.), SpringerReference ([www.springerreference.com](http://www.springerreference.com)), Springer-Verlag Berlin Heidelberg. DOI: 10.1007/SpringerReference\_349827.
- K. Spielmann H. Schaafsma, S.J. Hall, M. Kruse-Peebles, J. M. Briggs. 2011. Legacies on the Landscape: The Enduring Effects of Long-Term Human-Ecosystem Interactions. Pp. 199-218, In: *Movement, Connectivity, and Landscape Change in the American Southwest*, M. Nelson and C. Strawhacker (eds). University of Colorado Press, Boulder, CO.
- M. Kruse, H. Schaafsma, K. Spielmann, J. M. Briggs. 2010. Landscape Legacies of Prehistoric Agriculture Land-use in the Perry Mesa Region, Central Arizona. Pp. 122-141 In *Anthropogenic Landscapes: Archaeological Perspectives*, Rebecca Dean (ed), Center for Archaeological Investigations, Southern Illinois University.
- Briggs, J.M., A.K. Knapp, and S.L. Collins. 2008. Ecosystems: Steppes and prairies. Pp. 3373-3382 in *Encyclopedia of Ecology* (S.E. Jorgensen and B. D. Fath; eds), Oxford: Elsevier
- Knapp A.K., J.K. McCarron<sup>†</sup>, A.M. Silletti<sup>†</sup>, G.A. Hoch<sup>†</sup>, J.L. Heisler<sup>†</sup>, M.S. Lett<sup>†</sup>, J.M. Blair, J.M. Briggs and M.D. Smith. 2008. Ecological consequences of the replacement of native grassland by *Juniperus virginiana* and other woody plants. Pp. 156-169 in *Ecological Studies Vol. 196, Western North American Juniperus*



communities: A dynamic vegetation type (O.W. Van Auken, ed.). Springer-Verlag, NY.

- Knapp, A.K., J.M. Briggs, D. L. Childers, and O.E. Sala. 2007. Estimating aboveground net primary production in grassland- and herbaceous-dominated ecosystems. Pp. 27-48. In: *Principles and Standards for Measuring Net Primary Production in Long-Term Ecological Studies* (Fahey, T. and Knapp, A.K. eds), Oxford University Press.
- Hoch<sup>†</sup>, G., B. L. Brock, and J.M. Briggs. 2002. Applications of advanced technologies in studying and managing grassland landscape integrity. Pp. 390-411. In: *Integrating Landscape Ecology into Natural Resources Management* (Liu, J. and W.W. Taylor, eds.). Cambridge University Press.
- Briggs, J.M., M.D. Nellis, C.L. Turner, G.M Henebry and H. Su. 1998. A Landscape Perspective of Patterns and Processes in Tallgrass Prairie. Pp. 265-279 In: *Grassland Dynamics: Long-term Ecological Research in Tallgrass Prairie*. (A.K. Knapp, J.M. Briggs, D.C. Hartnett and S.L. Collins eds.), Oxford University Press, New York.
- Collins, S.L., A.K. Knapp, D.C. Hartnett and J.M. Briggs. 1998. The Dynamic Tallgrass Prairie: Synthesis and Research Opportunities. Pp. 301-315 In: *Grassland Dynamics: Long-term Ecological Research in Tallgrass Prairie*. (A.K. Knapp, J.M. Briggs, D.C. Hartnett and S.L. Collins eds.), Oxford University Press, New York.
- Knapp, A.K., J.M. Briggs, J.M. Blair and C.L. Turner. 1998. Patterns and Controls of Aboveground Net Primary Production in Tallgrass Prairie. Pp. 193-221 In: *Grassland Dynamics: Long-term Ecological Research in Tallgrass Prairie*. (A.K. Knapp, J.M. Briggs, D.C. Hartnett and S.L. Collins eds.), Oxford University Press, New York.
- Briggs, J.M. 1998. Evolution of the Konza Prairie LTER Information Management System. In W.K. Michener, J.H. Porter, and S.G. Stafford (eds.) *Data and Information Management in the Ecological Sciences: A Resource Guide*. Long-Term Ecological Research Network Office, University of New Mexico. Albuquerque.
- Briggs, J.M., B.J. Benson, M. Hartman, and R. Ingersoll. 1998. Data entry. In W.K. Michener, J.H. Porter, and S.G. Stafford (eds.) *Data and Information Management in the Ecological Sciences: A Resource Guide*. Long-Term Ecological Research Network Office, University of New Mexico. Albuquerque.
- Briggs, J.M. 1994. Impact of El Nino on Konza Prairie Research Natural Area. In *El Nino and Long-Term Ecological Research (LTER) Sites* (ed. D. Greenland) pp. 46-47. LTER publication no. 18.
- Briggs, J.M. and H. Su. 1994. Development and refinement of the Konza Prairie LTER Research Information Management Program. In: *Environmental Information Management and Analysis: Ecosystem to Global Scales*. (J.W. Brunt, W.K. Michener and S. Stafford, eds.). pp. 87-100. Taylor and Francis, Ltd.
- Seastedt, T.R. and J.M. Briggs. 1991. Long-term ecological questions and considerations for taking long-term measurements: Lessons from the LTER and FIFE programs on tallgrass prairie. pp.153-172. In: *Long-Term Ecological Research: An International Perspective*. (P.G. Risser, ed.) Scope Series #47, John Wiley & Sons, Chichester.

## **BOOK:**

Knapp, A.K., J.M. Briggs, D.C. Hartnett and S.L. Collins. 1998. *Grassland Dynamics: Long-term Ecological Research in Tallgrass Prairie*. Oxford University Press, New York. 364pp.

## **Reports and Proceedings:** (non-peer reviewed)

Fire and Form on the Konza Prairie. (2012) Photos and Commentary by Edward Sturr; Article by John M. Briggs (The importance of fire in maintaining the tallgrass prairie), Essay and Poetry by Elizabeth Dodd. Ag. Press. 57 pages (non-peer reviewed book).

Walkert, J.S. and J.M. Briggs. 2005: An object-oriented classification of an arid urban forest with true-color aerial photography. In: Proceedings of the ISPRS WG VII/1 "Human Settlements and Impact Analysis" 3rd International Symposium Remote Sensing and Data Fusion Over Urban Areas (URBAN 2005) and 5th International Symposium Remote Sensing of Urban Areas (URS 2005). Tempe, AZ, USA.

Wentz, E., S. Anderson, W. Stefanov, and J.M. Briggs. 2001. Desert fire history and effects on the Phoenix, Arizona, metropolitan area. Proceedings of the IEEE/ISPRS Joint Workshop on Remote Sensing and Data Fusion Over Urban Areas, Rome, Italy: 154-158.

Briggs, J.M. 1997. Data management at a Long-Term Ecological Research Site in pp. 52-57 Edited by T. Iwakuma. Long-term ecological research in the east Asia-Pacific region: Biodiversity and conservation of terrestrial and freshwater ecosystems. Proceedings of 2nd East-Asia Pacific Regional Conference on Long-Term Ecological Research, Tsukuba Japan.

Su, H., A.K. Knapp and J.M. Briggs. 1994. Effects of topography and fire on spatial and temporal distribution of soil moisture in a tallgrass prairie. In Time Domain Reflectometry in Environmental, Infrastructure and Mining Applications. pp. 154-162.

Briggs, J.M and S.L. Collins. 1993. Using remote sensing to determine heterogeneity in tallgrass prairie. Proceedings of the 7th Annual Erdas Users' Group Meeting 113-116.

McLaren, S.B. and J.M. Briggs. 1993. GIS Applications in Mammalogy. Special Publication of the Oklahoma Museum of Natural History. 41pp.

## **GRANTS FUNDED:**

- National Science Foundation. 2017-2019. **Briggs** and Horne (Co-PIs). FSML: Infrastructure improvements in support of the grassland and native grazer research at Konza Prairie Biological Station. **\$224,935.00**.
- U.S. Fish&Wildlife Services. 2017-2018. **Briggs**. Improving wildlife management practices on Konza Prairie Biological Station. **\$30,000.00**
- Manhattan Fund – Caroline Peine Charitable Foundation. 2011-2012. **Briggs**. Increasing energy efficiency at the Konza Prairie Biological Station. **\$38,000.00**.

- National Science Foundation. 2011-2013. **Briggs**, Horne and Hartnett (Co-PIs). FSML: Expanded lodging capacity for visiting researchers at the Konza Prairie Biological Station for the enhancement of research and training opportunities. **\$238,030.00.**
- National Science Foundation. 2010-2013. Joern, **Briggs**, Goodin, Skibbe, Towne (Co-PIs). Impacts of Spatially Heterogeneous Nitrogen to Grazer Distribution and Activity: Effects on Ecosystem Function in Tallgrass Prairie. **\$750,000.00.**
- Agriculture and Food Research Initiative (AFRI) Competitive Grants Program Award. 2010-2011. Wilcox (Lead-PI), Archer, **Briggs**, Elmore, Fuhlendorf, Hart, Polley and Wu (Co-PIs). Sustaining Rangelands in the Southern Great Plains in the 21st Century: Adapting to and Mitigating for Climate Change. **\$50,000.00.**
- Science Foundation-Arizona. 2007-2008. Grimm, Gries and **Briggs** (Co-PIs). Strategic Investment in ARENA (the Arizona Environmental Array). **\$60,040.00.**
- National Science Foundation. 2007-2008. Hall and **Briggs** (Co-PIs). Legacies on the Landscape: Prehistoric human land use and long-term ecological change. Supplement **\$42,814.00.**
- National Science Foundation. 2007. Hall and **Briggs** (Co-PIs). Legacies on the Landscape: Prehistoric human land use and long-term ecological change. REU **\$6,000.00.**
- Long-Term Ecological Network Office. 2007-2008. **Briggs** and Knapp (Co-PIs). Patterns and Consequences of Shrub Encroachment across North America. **\$9,080.00.**
- Bureau of Land Management. 2007-2008. Spielmann, Abbott and **Briggs** (Co-PIs) Legacies on the Landscape: Agricultural Production and Social Interaction on Perry Mesa, Agua Fria National Monument. **\$34,391.00.**
- National Science Foundation. 2006-2009. Hall and **Briggs** (Co-PIs). Legacies on the Landscape: Prehistoric human land use and long-term ecological change. **\$465,000.00.**
- Bureau of Land Management. 2005-2006. Spielmann, Kingth, **Briggs** (Co-PIs). Legacies on the Landscape: Agricultural Production on Perry Mesa, Agua Fria National Monument. **\$23,500.00.**
- Harvard University, Harvard Forest. 2005-2006. Charles Bullard Fellowship. **Briggs** (PI). **\$39,913.00**
- Long-Term Ecological Network Office. 2005-2006. **Briggs** and Knapp (Co-PIs). Shrub Expansion and Dynamics across the LTER Network: A Cross-Site Synthesis of Patterns, Mechanisms and Consequences. **\$22,820.00**
- National Science Foundation. 2004-2010. Grimm and Redman (Co-Project Directors). Central Arizona-Phoenix Long Term Ecological Research: Phase 2. **\$4,919,954.00.** (I am one of 21 Co-PIs)
- National Science Foundation. 2002-2007. Konza Prairie LTER V: Long-term Research on Grassland Dynamics and Global Change. Blair (PI), **Briggs**, Hartnett, Johnson, and Knapp (co-PIs). **\$4,468,000.00**

- National Science Foundation. 2002-2003. **Briggs PI**. Ecosystems in Transition: Causes and Consequences of Dramatic Shifts in Growth Form Dominance: REU **\$5,780.00**.
- National Science Foundation. 2001-2006. Arizona State University's Integrative Graduate Education and Research Training in Urban Ecology. (Fischer and Redman, Program Directors). **\$2,698,494.00**. (I am one of 6 Co-PIs).
- National Science Foundation. 2001-2006. GK-12 Formal Proposal: Down To Earth Science-Graduate Teaching Fellows in K-12 Education. Ramakrishna (PI). **\$1,246,233.00**. (I am one of 7 Co-PIs)
- National Science Foundation. 2001-2002. Coupled Nutrient, Water and Salt Cycles in Urban and Agricultural Ecosystems: Incubation Grant-BioComplexity. Brezonik et al. PIs (University of Minnesota); **Briggs**, Elser, Hope, Grimm, Stefanov (ASU contacts). **\$99,250**.
- ASU-College of Liberal Arts and Science. 2001. Wentz (PI), **Briggs** and Stefanov (CO-PIs). Reconstruction of Fire History Patterns in Sonoran Deserts around the Greater Phoenix Area. **\$16,140.00**.
- National Science Foundation. 2000-2003. **Briggs PI**. Ecosystems in Transition: Causes and Consequences of Dramatic Shifts in Growth Form Dominance. **\$442,845.00**.
- NASA. 1997-2000. Johnson (CO-PI), **Briggs (CO-PI)** with Blair, Ham, McKane, Owensby and Rice. Land-cover changes in the Great Plains: Predicting impacts of regional forest expansion on biogeochemical processes. **\$485,000.00**.
- NASA. 1997-1999. Nellis (PI), Allen, **Briggs**, Gogineni, Goodin, Harrington, Henebry and Price (CO-PIs). Spatial and Spectral Scale Dimensions for Modeling Rural Resource Systems: Projections for Global Change. **\$418,000.00**.
- NASA Earth System Science Graduate Student Fellowship. 1997-1999. **Briggs (Advisor-PI)** and Rieck (Graduate Student). Using Spatio-Temporal Heterogeneity for Landcover Characterization: Multi-Sensor Analysis of a Tallgrass Prairie Gradient **\$66,000.00**.
- NASA. 1996-1998. **Briggs** and Knapp. Local Validation of Global Estimates of Biosphere Properties: A Synthesis of Scaling Methods and Results across Several Major Biomes. **\$27,500.00**.
- National Science Foundation. 1996-2001. Blair, **Briggs**, Dodds, Hartnett, Johnson, Kaufman, Knapp (co-PIs). Long-Term Ecological Research in Tallgrass Prairie: The Konza Prairie LTER Program. **\$3,360,000.00**.
- National Science Foundation. 1995. Supplement to NSF Grant: Fire, Grazing and Climatic Interactions in Tallgrass Prairie. **\$37,236.00**.
- National Biological Survey. 1994-1995. Gibson, Blair, **Briggs**, Fay and Knapp. The capacity of Ft. Riley tallgrass prairie to support military training activity-Preliminary Analysis. **\$67,000.00**
- National Science Foundation. 1994. Supplement to NSF Grant: Fire, Grazing and Climatic Interactions in Tallgrass Prairie. **\$62,000.00**.

- National Science Foundation (REU). 1994. Projects at a Tallgrass prairie LTER site. **\$10,000.00.**
- Environmental Protection Agency (EMAP). 1994-1996. **Briggs (PI)** Use of remotely sensed data on phenological activity and heterogeneity to detect changes in grassland species composition in response to stress. **\$240,842.00.**
- EOSAT Corporation. 1994-1995. **Briggs (PI)** Constructing landscape trajectories: using TM data for ecological remote sensing. **\$25,000.00**
- National Science Foundation. 1993. Supplement to NSF Grant: Fire, Grazing and Climatic Interactions in Tallgrass Prairie. **\$63,126.00.**
- National Science Foundation (REU). 1993. Projects at a Tallgrass prairie LTER site. **\$10,000.00.**
- National Science Foundation. 1992. Supplement to NSF Grant: Fire, Grazing and Climatic Interactions in Tallgrass Prairie. **\$64,101.00.**
- National Science Foundation (REU). 1992. Projects at a Tallgrass prairie LTER site. **\$10,000.00.**
- National Science Foundation. 1991-1997. Fire, Grazing and Climatic Interactions in Tallgrass prairie. Seastedt, **Briggs**, Hartnett, Kaufman, Knapp and Tate (Co-PIs). **\$3,300,000.00.**
- National Science Foundation. 1991. Supplement to NSF Grant: Fire, Grazing and Climatic Interactions in Tallgrass Prairie. **\$40,000.00.**
- National Science Foundation (REU). 1991. Decomposition and Geographic Information System (GIS) Projects at a Tallgrass prairie LTER site. **\$10,000.00.**
- National Science Foundation. 1991. **Briggs (PI)** Inter-site climate database for Agricultural and Ecological Research. **\$20,835.00.**
- National Science Foundation. 1990. Supplement to NSF Grant: Upgrade of Geographical Information System Laboratory. **\$49,776.00.**
- National Science Foundation. 1989. Supplement to NSF Grant: Creating a Local Area Network. **\$40,500.00.**
- National Science Foundation. 1988. Supplement to NSF Grant: Computer and Image Processor Upgrade **\$85,295.00.**
- Kansas Wildlife and Parks. 1988-1990. **Briggs (PI)** Compilation of Kansas Winter Bird Feeder Survey. **\$2,700.00.**
- Arkansas Audubon's Trust Fund. 1983. **Briggs (PI)** Effects of supplemental food on island populations of mice. **\$1,000.00.**
- Arkansas Audubon's Trust Fund. 1982. **Briggs (PI)** Selection of acorns by vertebrates. **\$750.00.**
- Sigma Xi Grants-in-Aid of Research. 1982. **Briggs (PI)** Food limitations in *Peromyscus leucopus*. **\$500.00.**

#### **INVITED SYMPOSIUM TALKS:**

- Blair, J.M., J.M. Briggs and J.B. Nippert. Fire dynamics as a control of grass-woodland transitions in mesic grasslands. International workshop on “Abrupt grass-woodland transitions: Determinants and consequences for ecosystem services”, Punta del Este, Uruguay, December 16-19, 2012. Invited workshop presentation.
- Briggs, J.M. Woody plant expansion in tallgrass prairie. Grasslands in a Global Context Symposium, Kansas State University, September 12-14, 2011. Invited symposium presentation.
- Briggs, J.M. Impacts of increasing woody vegetation in herbaceous dominated systems. Invited Speaker. 17<sup>th</sup> Plant Biology Symposium—Plant Soil Interactions in Future Climates. Penn State University, University Park, PA. May 19-21, 2009.
- Briggs, J.M. Ecological Response to Land Use Change Along an Urban – Wildland Gradient. Invited speaker. 4<sup>th</sup> RISE Symposium (Research Insights in Semiarid Ecosystems). University of Arizona, Tucson, AZ. Oct. 06, 2007.
- Briggs, J.M. Long-term ecological research in an urban environment. Invited keynote speaker. *Seeking Science for Solutions*. Urban Ecological Research Consortium (UERC) of Portland/Vancouver; 5th Annual Urban Ecology and Conservation Symposium. Portland State University, Portland OR, Jan. 22-23, 2007.
- Briggs, J.M. Combining archeology and ecology in the Sonoran desert and desert grasslands. Invited Speaker. *Building on the Legacy of LTER Research: Ecology for the Future*. 6th Annual LTER Symposium, National Science Foundation, Washington, D.C., March 9, 2006. (Organized by John M. Briggs and Alan K. Knapp).
- Briggs, J.M. Catastrophic regime shift in an ecosystem: Conversion of a mesic grassland to a shrubland. *Catastrophic regime shift in Ecosystems: Long-Term Ecological Research Science Symposium*. University of Virginia, 19-20 September 2005. (Organized by John M. Briggs and Alan K. Knapp).
- Briggs, J.M. Can prescribed fires control woody vegetation in the tallgrass prairie? Invited Speaker. *Developing and communicating Experimental Tools for Restoration of Midwestern Prairie-Savanna Landscapes*. W.K. Kellogg Biological Station, Hickory Corners, Michigan. 8-9 May 2002.
- The expansion of woody plants into the tallgrass prairie landscape. *South African – Konza Prairie LTER Symposium*. Kansas State University. Invited Speaker. Manhattan, KS. May 21, 2001.
- The development of ecological data management within the U.S. LTER network. Invited Speaker. *East Asia-Pacific Regional Conference of International Long-Term Ecological Research (ILTER)*. Tsukuba, Japan. March 01-08, 1997.
- The importance of long-term data sets. Invited Speaker. *Fescue Grassland Management Workshop*. Prince Albert National Park, Saskatchewan, Canada. September 1996.
- Development and refinement of the Konza Prairie LTER Research Information Management Program. Invited Speaker. *International Symposium on*

*Environmental Information Management and Analysis: Ecosystem to Global Scales.* Albuquerque, NM. May 1993.

- A GIS View of the Konza Prairie. Invited Speaker. *Applications of Geographic Information System Technology to Mammalogy.* American Society of Mammalogist. June 1991.
- The use of GIS and Data Management for investigating Climatic Change in Tallgrass Prairie. Invited Speaker. *Workshop on Climatic Change in the Great Plains.* National Park Service. Wind Cave, SD. June 1991.

#### **INVITED SEMINARS:**

- Woody plant expansion in grasslands: Global or local drivers? Emporia State University, Emporia KS. May, 2009.
- Shrub encroachment in North American grasslands: Shifts in growth form dominance rapidly alters control of ecosystem carbon inputs. New Mexico State University, Las Cruces, NM. October 2007.
- Secondary succession in the Sonoran desert: Ancient human footprint. University of Massachusetts, Amherst, MA. November 2005
- Ecosystems in transitions: Tallgrass prairie and Sonoran desert. Harvard University, MA. September 2005.
- Role of fire and woody plant expansion in the tallgrass prairie. ASU Plant Biology, AZ. March 2003
- Central Arizona-Phoenix LTER: Land-Use Change and Ecological Processes in an Urban Ecosystem of the Sonoran Desert. Carlsbad Environmental & Research Center, NM. July 2001.
- Woody Tree Invasion in Native Tallgrass Prairie. Carlsbad Environmental & Research Center, NM. May 2000.
- Red Cedar Expansion into the Tallgrass Prairie. Arizona State University. Department of Geography, AZ. February 2000.
- Landscape Ecology: Linking spatial pattern and ecological processes. University of Virginia, VA. March 1999.
- The Keystone Role of Bison in North American Tallgrass Prairie. J.W. Jones Ecological Research Center, Newton GA. March 1998.
- The Challenge of Scientific Databases: Present Activities and Future Directions. National Science Foundation, Arlington, VA. September 1997.
- The development, refinement and future of Ecological Data Management in the Long Term Ecological Research Network in the United States. Chinese Ecology Research Network. Beijing, China. April 1996.
- Use of remote sensing to detect ecological stress in the Flint Hills. **Elroy Rice Lecture Series.** Department of Botany and Microbiology. University of Oklahoma. Norman, OK. March 1996.

- Using Remote Sensing and GIS to examine the effects of bison grazing on native tallgrass prairie. Archibold Biological Field Station, FL. May. 1993.
- The LTER program on Konza Prairie Research Natural Area. Division of Biology. University of Arkansas, AR. October 1991.

**PAPERS PRESENTED AT SCIENTIFIC MEETINGS (with published abstracts):**

- Briggs, J.M. 1984. Reproduction of female *Peromyscus leucopus* : High vs low food supplies. *Ecological Society of America* 65:212.
- Briggs, J.M. 1985. Acorn preference of *Peromyscus leucopus*. *American Society of Mammalogist*. University of Maine. June 1985.
- Briggs, J.M. 1986. Acorn preference of *Peromyscus leucopus*: effect of exposure. *American Society of Mammalogist*. University of Wisconsin. June 1986.
- Briggs, J.M. and M.D. Nellis. 1987. Ratioed Landsat Thematic Mapper Data for classifying Konza fire management units. *Bulletin of the Ecological Society of America* 68:269.
- Briggs, J.M. and M.D. Nellis. 1987. Principal component analysis of Landsat TM bands for Konza tallgrass prairie watershed differentiation. KAES/CES Annual Conference. Kansas State University. October 1987.
- Briggs, J.M. and M.D. Nellis. 1988. The impact of spatial scale on Konza Landscape Classification using textural analysis. Third Annual Landscape Ecology Symposium. University of New Mexico. March 1988.
- Briggs, J.M. and M.D. Nellis. 1988. Landsat Thematic Mapper Digital Data for predicting aboveground biomass in a tallgrass prairie ecosystem. North America Prairie Conference. University of Nebraska-Lincoln. August 1988.
- Briggs, J.M. 1988. Geographic Information Systems: Spatial Statistics for Ecologist. *Bulletin of the Ecological Society of America* 69:45
- Nilon, C. and J.M. Briggs. Kansas Winter Bird Feeder: Usefulness as a Winter Bird Population Index. 50<sup>th</sup> Midwest Fish and Wildlife Conference. The Ohio State University. December 1988.
- Briggs, J.M. and M.D. Nellis. Seasonal variation of heterogeneity in tallgrass prairie: a quantitative measure using remote sensing. Fourth Annual Landscape Ecology Symposium. Colorado State University. March 1989.
- Nellis, M.D. and J.M. Briggs. Predicting the impact of variation in land management strategies on the Kansas tallgrass prairie. AAG. Baltimore, MD. March 1989.
- Briggs, J.M. and C.C. Smith. 1989. Survival of scatterhoarded nuts: effects of species, season, and density. *Bulletin of the Ecological Society of America* 70:70.
- Finck, E. and J.M. Briggs. Movement and time budgets of a captive herd of bison. *American Society of Mammalogist*. Frostburg State University. June 1990.
- Briggs, J.M. and M.D. Nellis. 1990. Estimating net primary production in tallgrass prairie using remote sensing with a geographic information system. *Bulletin of the Ecological Society of America* 71:121.
- Briggs, J.M. 1990. Using a geographic information system for long term ecological research on Konza Prairie Research Natural Area. Fourth Annual Midwest/Great Lakes ARC/INFO User Conference. September 1990, pg. 13.



- Briggs, J.M. 1991. Patch structure in tallgrass prairie: effects of grazing and drought. *Bulletin of the Ecological Society of America* 72:77.
- Briggs, J.M. and A.K. Knapp. 1992. An analysis of long-term patterns in aboveground net primary production at the Konza Prairie Research Natural Area. *Bulletin of the Ecological Society of America* 73:172
- Briggs, J. M., J. T. Fahnestock, L. Ward and A.K. Knapp. 1994. Aboveground biomass production in tallgrass prairie: effect of time since fire. 13th North America Prairie Conference. Windsor, Ontario. August 1992.
- Benning, T.L., T.R. Seastedt, J.M. Briggs. 1993. Retrospective analysis of primary production in tallgrass prairie using remote sensing techniques. *Bulletin of the Ecological Society of America* 74:161
- Briggs, J.M. and A.K. Knapp. 1993. Interaction between dormant season soil moisture and fire in tallgrass prairie: effect on aboveground production. *Bulletin of the Ecological Society of America* 74:174.
- Briggs, J.M. and S.L. Collins. 1994. Using remote sensing to determine heterogeneity in tallgrass prairie. 7th Annual Erdas Users' Group Meeting 7:34.
- Briggs, J.M., D. R. Rieck, C. L. Turner, G. M. Henebry, D. G. Goodin and M.D. Nellis. 1995. Use of remotely sensed data on phenological activity and heterogeneity to detect changes in grassland species composition. EMAP Symposium: Monitoring, Assessment and Science Policy. Chapel Hill, NC. March 1995, pg. 29-31.
- Collins, S.L., J.M. Briggs and A.K. Knapp. 1995. Long terms patterns in community dynamics and productivity at the Konza Prairie Research Natural Area. *Bulletin of the Ecological Society of America* 76:51.
- O'Lear, H.A., T.R. Seastedt, J.M. Briggs, J.M. Blair and R.A. Ramundo. 1995. Effects of fire and topography on decomposition of buried wood in tallgrass prairie. *Bulletin of the Ecological Society of America* 76:200.
- Briggs, J.M., D. R. Rieck, C. L. Turner, G. M. Henebry, D. G. Goodin and M.D. Nellis. 1996. Use of AVHRR to detect spatial and temporal patterns of vegetation in the Flint Hills of KS and OK. *Bulletin of the Ecological Society of America* 77:53.
- Hoch, Greg A., and John M. Briggs. 1997. Use of satellite remote sensing to detect historic and current land use on Ft. Riley Army Reservation, KS. 14<sup>th</sup> Fourth Annual Landscape Ecology Symposium, Duke University, NC.
- Rieck, Donna R., and John M. Briggs. 1997. Change detection analysis of two tallgrass prairie sites using multirate TM imagery. 14<sup>th</sup> Fourth Annual Landscape Ecology Symposium. Duke University, NC.
- Briggs, J.M. and A.K. Knapp. 1997. Seasonal relationship between LAI, NDVI and aboveground biomass in tallgrass prairie. *Bulletin of the Ecological Society of America* 78:227.
- Hoch, Greg A., and John M. Briggs. 1997. Abiotic effects of landscape patterns in the Flint Hills, Kansas. *Bulletin of the Ecological Society of America* 78:259.
- Rieck, Donna R., and John M. Briggs. 1997. Multirate analysis of the effects of climate and land management on tallgrass prairie sites. *Bulletin of the Ecological Society of America* 78:303.
- Hoch, G. A. and J.M. Briggs. Expansion of eastern red cedar (*Juniperus virginiana*) in the northern Flint Hills, Kansas. 16th North American Prairie Conference, Kearney Nebraska, 26-29 July 1998.

- Briggs, J.M. and A.K. Knapp. 1998. Temporal patterns of aboveground net primary production in tallgrass prairie: effects of fire. *Bulletin of the Ecological Society of America* 79:38.
- Hoch, G.A., J.M. Briggs and L.C. Johnson. 1998. Patterns of *Juniperus virginiana* invasions of tallgrass prairie in eastern Kansas. *Bulletin of the Ecological Society of America* 79:71.
- Rieck, Donna R., and John M. Briggs. 1998. Landcover patterns of tallgrass prairie sites as affected by climate and land management. *Bulletin of the Ecological Society of America* 79:208.
- Hoch, G.A. J.M. Briggs and L.C. Johnson. 1999. *Juniperus virginiana* expansion into tallgrass prairie in eastern Kansas: The influence of land use patterns. *Bulletin of the Ecological Society of America* 80: 109.
- Briggs, J.M., A.K. Knapp and J. K. Koelliker. 2000. Water limitations in a mesic grasslands: a long-term irrigation experiment at Konza Prairie. BES/ESA 2000. Orlando, FL.
- Briggs, J.M., B. L. Brock and A.K. Knapp. 2000. The persistence of woody vegetation in tallgrass prairie. ASM/ESA Snowbird, Utah. August 2000.
- Knapp, A. K., J.M. Briggs, J. K. Koelliker. 2000. Frequency and extent of water limitation to primary production in a mesic temperate grassland. ASM/ESA Snowbird, Utah. August 2000.
- Blair, J.M., A.K. Knapp, J.M. Briggs, B.L. Brock, et al. 2000. The Konza Prairie LTER Ecological Research Program: Ecological Dynamics in Tallgrass Prairie. ASM/ESA Snowbird, Utah. August 2000.
- Briggs, J.M., B.L. Brock and A.K. Knapp. 2001. The response of woody vegetation in tallgrass prairie under different fire regimes. *Bulletin of the Ecological Society of America* 82: 61.
- Heisler, J.A. and J.M. Briggs. 2001. Woody vegetation expansion in a mesic grassland: fire frequency, topography, and interannual variability. *Bulletin of the Ecological Society of America* 82: 290.
- Wentz, Elizabeth, Sharolyn Anderson, William Stefanov and John Briggs. 2001. Desert Fire History and Effects on the Phoenix, Arizona, Metropolitan Area. IEEE/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas. Rome, Italy. 154.
- Heisler, J.A. and J.M. Briggs 2002. The interaction of woody vegetation and fire in a C<sub>4</sub> grassland: mechanisms driving shrub expansion. *Bulletin of the Ecological Society of America* 83:154.
- Schaafsma, H. and J.M. Briggs 2002. Agricultural perturbations and the herbaceous legacy of the prehistoric Hohokam people in Arizona. *Bulletin of the Ecological Society of America* 83: 421.
- Heisler, J.A. and J. M. Briggs. 2003. An ecosystem in transition: What are the mechanisms driving shrub expansion in temperate grasslands? *Bulletin of the Ecological Society of America* 84: 146.
- Schaafsma, Hoski and J. M. Briggs. 2003. A legacy on the modern landscape of prehistoric farming in the Sonoran Desert of Arizona. *Bulletin of the Ecological Society of America* 84:297.

- Briggs, J.M, et al. 2004. Legacies on the Landscape: Integrating Ecology and Archaeology to Understand Long-Term Human-Ecosystem Interactions. *Bulletin of the Ecological Society of America* 85:63.
- Knapp, A.K., J. M. Blair, P.A. Fay, J.B. Nippert, M.D. Smith, J.M. Briggs, S.L. Collins. 2004. Contrasting responses of mesic grasslands to interannual and seasonal precipitation patterns. *Bulletin of the Ecological Society of America* 85:275.
- Walker, J.S and J.M. Briggs. 2004. Hierarchical image analysis of Phoenix's urban forest structure. *Bulletin of the Ecological Society of America* 85:527.
- Butterfield, B. and J. M. Briggs. 2005. Interdependent population dynamics of nurse plant associations: Biotic and climatic factors. Montreal, Quebec.
- Schaafsma, H. and J.M. Briggs. 2005. Legacies of Bronze Age and Medieval Period farming in central Sweden: An archaeological perspective on modern plant communities. *Ecological Society of America*. Montreal, Quebec.
- Walker, J.S. and J.M. Briggs. 2005. Successional dynamics of the urban forest in the Phoenix metropolitan. *Ecological Society of America*. Montreal, Quebec.
- Bang, C., J. Briggs, R. Bills, M. Dilorio, L. Dugan, R. Erickson, S. Earl, S. Faeth, N. Grimm, M. Feldner, E. Holmes, D. Hope, J. Kaye, A. Kinzig, C. Kochert, A. Majumdar, C. Redman, E. Shock, Q. Stewart, J. Walker, J. Stutz, M. Tseng, S. Whitcomb, X. Zhuo, C. Gries. 2006. Survey200: CAP LTER's approach to extensive field monitoring. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.
- Bills, R., J. Briggs, L. Dugan, E. Holmes, D. Hope, M. Feldner, C. Gries, N. Grimm, A. Kinzig, L. Landrum, Q. Stewart, S. Whitcomb. 2006. Ecological transformation via urbanization. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.
- Blair, J., E. G. Towne, J. Briggs, A. Knapp. 2006. The Konza Prairie Fire Reversal Experiment: Initial Plant and Soil Responses to a Change in Fire. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.
- Blair, J., J. Briggs, W. Dodds, K. Gido, D. Hartnett, A. Joern, L. Johnson, D. Kaufman, A. Knapp, B. Sandercock. 2006. The Konza Prairie LTER Program: Long-Term Research on Grassland Dynamics and Global Change. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.
- Briggs, J.M., A.K. Knapp, S. Archer, S. Bret-Harte, S. Collins, B. Ewers, D. Peters, D. Young. 2006. Shrub encroachment across North America: a multi-site synthesis of patterns, mechanisms, and consequences. *Ecological Society of America*. Memphis, TN.
- Butterfield, B. and J. M. Briggs. 2006. Modeling the ecology and evolution of nurse plant associations. *Ecological Society of America*. Memphis, TN.
- Grimm, N., C. Redman, J. Briggs, C. Gries, M. Elser, R. Bolin, J. Allen, S. Harlan, S. Faeth, M. Anderies, J. Stutz, C. Martin, P. Westerhoff, J. Arrowsmith, J. Zehnder, J. Wu, A. Kinzig. 2006. Central Arizona–Phoenix Long-Term Ecological Research (CAP LTER) Project. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.
- Koelliker, J., A. Knapp, J. Briggs, J. Blair. 2006. Acclimation to Change in Water Regime in a Mesic Temperate. LTER All Scientist Meeting, "Next 25 Years of LTER," September 20-23, Estes Park, CO.

- Schaafsma, H. and J.M. Briggs. 2006. Soils matter! Ecological legacies on centuries old agricultural terraces in the Sonoran desert created by permanently altered soils. Ecological Society of America. Memphis, TN.
- Walker, J.S, L Dugan, C. Gries and J.M. Briggs. 2006. Urban succession: Phoenix. Ecological Society of America. Memphis, TN.
- Ontl, T.A. H. Schaafsma, S.J. Hall and J.M. Briggs 2007. Legacies of prehistoric agricultural on herbaceous community in a desert grassland. Ecological Society of America. San Jose, CA.
- Schaafsma, H and J. M. Briggs. 2007. Examining the creation of alternate stable steady states in herbaceous community structure on ancient agricultural fields. Ecological Society of America. San Jose, CA.
- Walker, J. and J.M. Briggs. 2007. Money grow trees: A socio-ecological path analysis. Ecological Society of America. San Jose, CA.
- Hall, S.J, J.M. Briggs, H. Schaafsma and J. Trujillo. 2008. Impacts of prehistoric land use intensity on ecological legacies in the arid, US Southwest. Ecological Society of America. Milwaukee, WI.
- Butterfield, B. and J.M. Briggs. 2008. Local biotic interactions drive community dynamics in a Sonoran Desert perennial plant community. Ecological Society of America. Milwaukee, WI.
- Nippert J., T. Ocheltree, A. Skibbe and J.M. Briggs. 2009. Patterns of 13C and 15N in a woody shrub in a burned and grazed grassland. Joint Annual Meeting of the American Geophysical Union, Toronto, CAN May 24-28.
- Butterfield, B. and J.M. Briggs. 2009. Desert woody plant functional strategies are related to facilitation and precipitation variability. Ecological Society of America. Albuquerque, NM.
- Knapp, A.K., S.L. Collins, M.D. Smith, J.M. Blair, J.M. Briggs, J.K. Koelliker. 2009. Trajectories of grassland ecosystem change in response to altered precipitation patterns. Ecological Society of America. Albuquerque, NM.
- Briggs, J.M. and J.M. Blair. 2011. Assessing the ecological impacts of changing climate and land-cover in tallgrass prairie. Ecological Society of America meeting, Austin, TX,
- Killian, PD, J.M. Briggs and N.M. Bello. 2012. Physiological integration of *Cornus drummondii* and the mechanisms driving woody encroachment in the tallgrass prairie. Ecological Society of America meeting, Portland, OR.

#### **SERVICE ON ARIZONA STATE UNIVERSITY COMMITTEES:**

- School of Life Sciences, Undergraduate Curriculum Committee. (2006-2008).
- School of Life Sciences, Personnel Committee (2005 –2008).
- School of Life Sciences, Search Committee, Terrestrial BioGeoChemistry/Global Ecology (Fall 2004)
- School of Life Sciences, Search Committee for 3 Associate Directors (Spring 2003)
- CAP-LTER Urban Ecology Executive Committee (2000-2008)
- Search Committee Urban Ecology IGERT for Terrestrial BioGeoChemistry (Spring 2002)
- IGERT Urban Ecology Executive Committee (2001-2004)

- Personnel Committee Department of Plant Biology (2001-2002)
- Search Committee Department of Plant Biology for Plant Taxonomy (Spring 2001)
- Geographical Information Science Certificate Executive Member (2000-2008)
- Graduate Student Selection Committee Department of Plant Biology (1999-2002)

#### **SERVICE ON KSU COMMITTEES:**

- Member, 2013 All-University Campaign Committee
- Member, KSU Prairie Studies Program. New program spearheaded by Linda Duke (Director of Marianna Kistler Beach Museum of Art) that is bridging science and art.
- Member, University's ESF – 11 Animal Care and Safety Committee. Goal of committee is: “re-evaluate our plan, in particular a State Scenario in October 2013: A Foot and Mouth Disease (FMD) outbreak that begins in another, non-contiguous state and spreads to NE Kansas.
- Member, Search Committee for Agronomy Micrometeorology Position.
- Member, KSU Institute for Grassland Studies (IGS) Steering Committee. Committee met numerous times in 2011 to plan and conduct the KSU-sponsored 2011 international grasslands conference Grasslands in a Global Context.
- Adjunct non-voting member, Friends of Konza Prairie. (2008- ) This group meets monthly and I am there to provide guidance and directions to determine how to advance KPBS. This is the main source of funds for the environmental education program at KPBS.

#### **SERVICE ON NATIONAL AND INTERNATIONAL COMMITTEES:**

- *Long Term Ecological Research Network Information System Data Portal Member.* 2013-
- *The National Research Council of The National Academies.* Panel Member. Ford Foundation Fellowship Programs in Ecology and Environmental Sciences. March 2013.
- *National Science Foundation.* Panel Member. Field Stations and Marine Laboratory Improvement. March 2013.
- *LTER Networks Coordination Working Group Committee.* 2011-
- *Domain Science and Education Coordination Committee (DSECC) for Domain 6 of NEON (Chair).* 2009-
- *Long Term Ecological Research Network Information System Advisory Committee (NISAC) member.* 2008-2010.
- *National Science Foundation.* Panel Member. Ecosystems. October 2009
- *Coweeta Long Term Ecological Research Project.* External committee member. June 27-28, 2007.
- *International Society of Landscape Ecology.* Editorial Board. 2005-2009.
- *NEON Design Consortium.* Science and Human Dimensions Committee member. 2005.
- *Ecological Society of America.* Publication Committee. 2003-2009.
- *National Science Foundation.* Panel Member. Postdoctoral Research Fellowships in Interdisciplinary Informatics. Feb. 2003; July 2004 & 2005.

- *National Science Foundation*. Luquillo LTER Site Review Team committee. June 10-13, 2003.
- *Audubon Appleton-Whittell Research Ranch*. The Research Ranch Foundation Science Committee. 2002-2008.
- *National Science Foundation*. Plum Island Ecosystem LTER Site Review Team committee. October 11-13, 2001.
- *National Science Foundation*. Committee of Visitors; Review of the Division of Biological Infrastructure. March 2000.
- *National Science Foundation*. The National Center for Ecology and Synthesis Site Review Team committee (*Chair*). February 2000.
- *MacArthur Agro-Ecology Research Center*. Lake Placid, FL. Scientific Advisory Board member. 01 September 1999 to 2008.
- *Carlsbad Environmental Monitoring and Research Center*. Science Advisory Board member. 01 October, 1999 to 30 September 2001
- *LTER Network*. Elected Executive Committee Member, 1997-1998
- *National Science Foundation*. Panel Member. Field Stations and Marine Laboratory Improvement. 1995-1998.
- *National Science Foundation*. Sevilleta LTER Site Review Team committee. September 22-24, 1997.
- *National Science Foundation*. Luquillo LTER Site Review Team committee. June 04-07, 1997.
- *National Science Foundation*. East Asia-Pacific of International Long-Term Ecological Research (ILTER) committee member. March 01-08, 1997.
- *National Science Foundation*. McMurdo Dry Valleys LTER Site Review Team committee. January 02-12, 1997.
- *National Science Foundation*. NSF Review Panel. San Diego Supercomputer Center. June 1996.
- *Chinese Ecosystem Research Network (CERN)*. Member of Scientific Advisory Committee. 1995-1997.
- *Kiskunsag LTER Project (Hungary)*. Member of Scientific Advisory Committee. 1995.
- *National Science Foundation*. Hubbard Brook LTER site review committee. August 22-25, 1995.
- *National Science Foundation*. Panel Member. Conservation Biology. January 1995.
- *Environmental Protection Agency*. Panel Member. Biology Review. January 1995.
- *Flora of North America*. Member of Advisory Panel. 1995-1996.
- *National Science Foundation*. Panel Member. LTER review. May 1994.
- *National Science Foundation*. Coweeta LTER site review committee. August 16-19, 1993.
- *National Science Foundation*. North Temperate Lakes LTER site review committee. July 12-15, 1993.
- *Emporia State University*. Advisory Council for Geospatial Analysis. 1993.
- *National Science Foundation*. Harvard Forest LTER site review committee. July 21-24, 1992.
- *National Science Foundation*. Panel Member. Database Activities in the Biological Sciences. March 1993.
- *National Science Foundation*. Panel Member. LTER. February 1992.

- NASA. Science Working Group. Pilot Land Data System. NASA Goddard Space Flight Center. September 19-21, 1991.
- *National Science Foundation*. Jornada Experimental Range LTER site review committee. July 11-12, 1991
- *National Science Foundation*. Sevilleta National Wildlife Refuge LTER site review committee. July 7-10, 1991.

### **AD-hoc Reviewer**

- *Granting Agencies*
  - National Science Foundation
    - Division of Environmental Biology; Ecology; Ecosystems, Population Biology, Field Stations and Marine Laboratories Program.
    - BioComplexity
    - Geography and Regional Science
    - International Programs
  - USDA-Applied Ecosystem Research
  - EPA STAR Research Program
  - Strategic Environmental Research and Development Program (Department of Defense) Panel member (Panel member 2001-2002; 2004-2005)
  - Program for Research and Operation of the Integrated Hydrometeorological System for Sao Paulo State, Brazil
- *Journals*
  - Editor for *Landscape Ecology* (2005 – 2010);
  - *Anni. Bot. Fennici*, *American Journal of Botany*, *American Midland Naturalist*, *BioScience*, *Ecology*, *Ecological Applications*, *Ecological Monographs*, *Ecosystems*, *Global Climate Change and Biology*, *Journal of Applied Ecology*, *Journal of Ecology*, *Journal of Range Management*, *Oecologia*, *Oikos*, *Plant Ecology*, *Restoration Ecology*, *Southwest Naturalist*
- *Books:*
  - *After the Fires: The Ecology of Change in Yellowstone Park* (Yale University Press)
  - *Forest in Time*. (Harvard Forest Synthesis Volume; Yale University Press)
  - *Field Guide to the Common Grasses of Oklahoma, Kansas and Nebraska*. University of Kansas Press

### **Other Services:**

- External Reviewer of Kansas Biological Survey. 2015.
- Co-Organizer of “*America’s Grasslands: The Future of Grasslands in a Changing Landscape*”. 2013.
- External Reviewer of Center of Ecology at Southern Illinois-Carbondale. 2010.
- External examiner of Ph.D. thesis for University of Cape Town, South Africa; La Trobe University, Australia.

- External Reviewer of proposed Ph.D. degree in Integrative Life Sciences at Virginia Commonwealth University. 2003.
- Reviewer of tenure/promotion packages for Texas A&M University, University of California-Davis, North Dakota University, Southern Illinois-Carbondale, South Dakota University, Syracuse University, Wichita State University, University of Oklahoma.
- Hartnett, D.C., J.M. Briggs, G. Henebry, G. Towne, C. Turner and J. Cully (editors). 1995. Prairie BioDiversity: Proceedings of the Fourteenth North America Prairie Conference. In addition, I was program Chair for the Conference.