

**SHARON K. COLLINGE**  
Professor, Environmental Studies Program  
University of Colorado-Boulder  
[sharon.collinge@colorado.edu](mailto:sharon.collinge@colorado.edu)  
[www.collingelab.com](http://www.collingelab.com)

### **EDUCATIONAL BACKGROUND**

- Ph.D. Harvard University, June 1995 (Landscape Ecology)  
Dissertation title: "Spatial Arrangement of Patches and Corridors in the Landscape: Consequences for Biological Diversity and Implications for Landscape Architecture," 240 pp.
- M.S. University of Nebraska-Lincoln, August 1987 (Biology)
- B.A. Kansas State University, 1985 (Biology)

### **ACADEMIC EMPLOYMENT HISTORY**

- 2014-*present* **Professor**, Environmental Studies Program, CU-Boulder
- 2018-2019 **Chief Scientist / Observatory Director**, National Ecological Observatory Network (NEON), Boulder, CO (Visiting Scientist from CU-Boulder)
- 2010-2014 **Professor**, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder
- 2012-2015 **Director**, Environmental Studies Program, CU-Boulder
- 2015 **Consulting Director**, Environmental Design Program, CU-Boulder
- 2013-2015 **Program Implementation Director**, School of the Environment and Sustainability, CU-Boulder
- 2003-2009 **Associate Professor**, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder
- 2005-2006 **CU Faculty Fellow**, on sabbatical leave in Tanzania, East Africa
- 1998-2003 **Assistant Professor**, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder
- 1996-98 **Assistant Professor**, Environmental Design, University of California-Davis
- 1995 **Instructor**, Mountain Research Station, University of Colorado-Boulder
- 1990-95 **Teaching Fellow**, Department of Environmental Studies and Public Policy and Graduate School of Design, Harvard University
- 1992-94 **Assistant Director**, Mountain Research Station, University of Colorado-Boulder
- 1990 **Program Officer for Life Sciences**, The Center for Field Research, Watertown, MA
- 1989-90 **Teaching Fellow**, Department of Organismic and Evolutionary Biology, Harvard University
- 1987-89 **Research Assistant III**, Department of Organismic and Evolutionary Biology, Harvard University
- 1985-87 **Graduate Teaching Assistant**, University of Nebraska, Lincoln, NE
- 1985-87 **Graduate Research Assistant**, Rocky Mountain Biological Laboratory, Gothic, CO

### **AREAS OF EXPERTISE**

My leadership experience includes serving as the top-level scientific authority responsible for the advocacy of transformative research utilizing the continental scale National Ecological Observatory Network (NEON); directing a large, complex, interdisciplinary environmental studies program; guiding the transition of an environmental design program to a new administrative structure; and integrating research, teaching, and community engagement activities across campus to enhance student experiences and increase visibility of interdisciplinary environment and sustainability programs. My interdisciplinary scholarship and teaching focus on human-environment interactions in urban and wild landscapes. My research emphasizes the impacts of habitat loss, fragmentation, and restoration on the persistence of native species, communities, and ecosystems, and is particularly relevant to the interface between environmental science, policy and planning regarding endangered species and habitat protection.

## **LEADERSHIP EXPERIENCE AND ADMINISTRATIVE ASSIGNMENTS**

### ***Faculty Director, Center for Sustainable Landscapes and Communities (2018-present)***

- Supervised collaborative activities among CU faculty, staff, students, local organizations and community members and secured funding to support these activities
- Developed a new ENVS undergraduate course, "Leadership for Environmental Sustainability," in which students engaged with local organizations to produce strategic plans for Center projects

### ***Chief Scientist / Observatory Director, National Ecological Observatory Network (2018-2019)***

- Top-level scientific authority responsible for the advocacy of transformative research utilizing the continental scale ecological Observatory
- Led a multi-disciplinary scientific and technical staff to provide highly reliable data, infrastructure, and scientific resources to a diversity of stakeholders

### ***Capstone Project Mentor, Masters of the Environment (MENV) program, CU-Boulder (2017-18)***

- Appointed by the MENV Faculty Director to guide the development and implementation of capstone projects for seven MENV student groups working with partner organizations
- Supervised and mentored students in preparing written and oral presentations of their projects

### ***Chair of the Visioning Committee and Program Implementation Director, School of the Environment and Sustainability, CU-Boulder (2012-2015)***

- Appointed by the Provost to direct the visioning process and implementation of a new interdisciplinary school of environment and sustainability
- Selected and supervised working groups focused on all aspects of implementation, including budget models, curricula, faculty rostering, interdisciplinary research initiatives, and fundraising

### ***Consulting Director, Program in Environmental Design, CU-Boulder (2015)***

- Appointed by the Provost to provide strategic direction, guidance, and supervision to the director, staff, and faculty of the Environmental Design program
- Developed a new annual budget to align instructional needs with capacities

### ***Director, Environmental Studies Program, University of Colorado (2012-2015)***

- Elected by faculty to direct large, complex and diverse interdisciplinary program
- Member of the fundraising team for the \$100M Sustainability, Energy, and Environment Complex (SEEC)

### ***Participant, American Council on Education Regional Women's Leadership Forum (2015)***

- Nationally recognized, 3-day leadership program for mid-level university administrators with high potential for advancement in higher education administration
- Focused training on leadership skills, including fundraising and strategic planning

### ***Member, Vice Chancellor's Advisory Committee, CU-Boulder (2011-2013)***

- Appointed by the Associate Vice Chancellor for Faculty Affairs to serve on the highest-level personnel committee on the CU-Boulder campus
- Reviewed and evaluated over 300 personnel cases for promotion and tenure from all schools and colleges, including Arts & Sciences, Engineering, Law, Business, Education, and Music

### ***Vice President for Public Affairs, Ecological Society of America (2011-2014)***

- Elected to Governing Board of 10,000-member professional society
- Worked with professional staff on media outreach and engagement with local, regional, and federal decision-makers on actions related to ecological science and sustainability

***Project Director, NSF-EPA funded research on Ecology of Infectious Diseases (2001-2007)***

- Developed and directed a collaborative project entitled, “*Landscape effects on disease dynamics in prairie dogs*,” funded by NSF and EPA with a \$2.3M budget
- Managed 7 senior research collaborators, 3 postdoctoral associates, 8 graduate students and approximately 35 undergraduate field assistants

***Aldo Leopold Leadership Fellow, 2004***

- Selected as one of 20 environmental scientists nationwide
- Participated in communication and leadership training to facilitate collaboration and networking among scientists and a broad range of decision-makers, business leaders, and media outlets

**GRANTS, AWARDS, AND HONORS**

**Grant administration**

National Science Foundation, Division of Biological Infrastructure, “National Ecological Observatory Network (NEON) Operations Activities,” 2016-2020, \$90,044,356, PI (Cooperative Support Agreement 1638696 awarded to Battelle)

National Science Foundation, Division of Biological Infrastructure, “National Ecological Observatory Network (NEON) Operations Activities,” 2017-2020, \$78,535,140 awarded to date, PI (Cooperative Support Agreement 1724433 awarded to Battelle)

National Science Foundation, Division of Biological Infrastructure, “Workshop: Optimizing NEON Science,” 2016-2018, \$99,776, PI (Award 1649997 to Battelle)

National Science Foundation, Division of Biological Infrastructure and Division of Atmospheric and Geospace Sciences, “Joint NCAR/NEON Workshop: Predicting life in the Earth system – linking the geosciences and ecology,” 2019, \$99,000, co-PI (Awarded to NCAR)

**Externally funded research grants: previous**

National Science Foundation, Long-term research in environmental biology (LTREB) program renewal, “Evaluating the role of metacommunity dynamics in the assembly of vernal pool plant communities,” 2013-2018, \$449,999, PI (Award 1257385, NCE approved to 8/31/2019)

National Science Foundation, Long-term research in environmental biology (LTREB) program, “Evaluating the role of metacommunity dynamics in the assembly of vernal pool plant communities,” 2008-2013, \$449,965, PI (Award 0744520)

City of Boulder Open Space and Mountain Parks Department, March-December 2007, “Black-tailed prairie dog demography in a landscape context,” \$7,400 (with graduate student co-PI Katherine McClure)

Boulder County Parks and Open Space Department, March-December 2007, “Black-tailed prairie dog demography in a landscape context,” \$5,000 (with graduate student co-PI Katherine McClure)

National Science Foundation and National Institutes of Health, Joint program in Ecology of Infectious Diseases (EID), “Landscape effects on disease dynamics in prairie dogs,” 2002-2007, \$1,776,000 (Project Director, with 7 collaborators)

National Science Foundation, Ecology of Infectious Diseases, Supplemental funding for “Landscape effects on disease dynamics in prairie dogs,” 2005-2007, \$56,715, (Project Director, with 7 collaborators)

U.S. Environmental Protection Agency Office of Research and Development, STAR Program in Wildlife Risk Assessment, “Habitat alteration and disease effects on black-tailed prairie dogs,” 2001-2005, \$500,000 (Project Director, with 6 collaborators)

Boulder County Parks and Open Space Department, March-December 2005, “Plague and prairie dog predators,” \$5,000 (with graduate student co-PI Jory Brinkerhoff)

National Science Foundation Doctoral Dissertation Improvement Grant, Ecology Program, “Microevolutionary dynamics and conservation genetics of the rare vernal pool sunflower

*Lasthenia conjugens* (Asteraceae),” 2002-2004, \$9,991 (PI: Tom Ranker, with graduate student co-PI Jennifer Ramp)

David and Lucile Packard Foundation Interdisciplinary Science Program, July 2000-July 2005, “Ecological and evolutionary responses to habitat mosaics: integrating across spatial and temporal hierarchies of plant biodiversity,” \$998,200 (Project Director: Kevin Rice, UC-Davis; one of four collaborators)

Boulder County Parks and Open Space Department, March-December 2004, “Seasonal and spatial variation in disease prevalence, rodent and flea communities, and habitat quality on black-tailed prairie dog colonies,” \$5,000 (with graduate student co-PI Amelia Markeson)

Andrew W. Mellon Foundation, April 2000-June 2003, “Plant diversity in spatially complex landscapes: ecological and evolutionary responses to environmental structure,” \$310,000 (Project Director: Maureen Stanton, UC-Davis; one of five collaborators)

US Fish and Wildlife Service, Ecological Services Office, 2001-2002, “Vernal pool plant community ecology and restoration,” \$24,500 (sole PI)

Air Force Center for Environmental Excellence, 2001-2002, “Vernal pool and endangered species habitat mitigation,” \$34,969 (sole PI)

City of Boulder Open Space and Mountain Parks, June 2001-August 2001, "Reproductive ecology of cavity-nesting birds in Ponderosa pine forests on City of Boulder Open Space," \$9,760 (with graduate student co-PI Sue Rodriguez-Pastor)

City of Boulder Open Space and Mountain Parks, June 2001-August 2001, "Effects of recreational trails on space use by small mammals," \$4,355 (with graduate student co-PI Whitney Johnson)

Air Force Center for Environmental Excellence, 1999-2000, “Vernal pool and endangered species habitat mitigation,” Phase III, \$49,752 (sole PI)

City of Boulder Open Space Department, March 2000-December 2000, "Reproductive ecology of cavity-nesting birds in Ponderosa pine forests on City of Boulder Open Space," \$12,322 (with graduate student co-PI Sue Rodriguez-Pastor)

City of Boulder Open Space Department, March 2000-December 2000, "Livestock activity and salt licks: evaluation and restoration of disturbed grassland patches," \$2,500 (with graduate student co-PI Rebecca Rawlinson)

Air Force Center for Environmental Excellence, 1998-1999, “Vernal pool and endangered species habitat mitigation,” Phase I, \$50,000 (sole PI)

National Science Foundation Doctoral Dissertation Improvement Grant, 1993, “The ecological implications of habitat fragmentation: A field manipulation of patch size and connectivity,” \$6,600

Colorado Mountain Club Foundation, 1993, “The ecological implications of habitat fragmentation: A field manipulation of patch size and connectivity,” \$300

Sigma Xi Grant-in-Aid of Research, 1992, “Ecological consequences of habitat fragmentation: A field manipulation of patch size and connectivity,” \$300

### **Internally funded grants for research, instruction and community engagement**

Environmental Studies Program Fees, 2019, \$6,525 awarded to support student-community collaboration for strategic planning for “ENVS 4100: Leadership for Environmental Sustainability”

CU Office for Outreach and Engagement Microgrant, 2019, \$1,077, “Student and stakeholder strategic planning for sustainable communities”

CU Office for Outreach and Engagement, Environmental Science and Sustainability Initiative Microgrant, 2019, \$6,000 “Scoping an Ecosystem Trends Report for Boulder County,” including funds to support activities of the Center for Sustainable Landscapes and Communities

CU Office for Outreach and Engagement, Environmental Science and Sustainability Initiative Microgrant, 2018, \$2,000, “University - Community Collaboration for Forest Health”

LEAP Individual Growth Grant, University of Colorado, 2007, \$7,500

Council on Research and Creative Work, University of Colorado, 2005-2006, “Landscape structure and disease ecology in African grasslands;” Grant-in-aid, \$7,000

California Agricultural Experiment Station, 1996-1998, "Ecological roles of landscape spatial structure in habitat conservation and restoration," Year 1, \$5,300, Year 2, \$4,500  
University of California-Davis, Faculty Research Grant, 1996, "The role of habitat spatial structure in ecological restoration," \$9,991  
University of Colorado Museum, 1993, "The ecological implications of habitat fragmentation: A field manipulation of patch size and connectivity," \$200  
Penny White Student Projects Award, Harvard University, 1991, "What are the ecological implications of habitat fragmentation? A field manipulation of patch size and connectivity," \$2,500

### **Awards and Honors**

Elected as a Fellow of the Ecological Society of America, 2016  
Recipient of PLAN-Boulder County Gilbert White Award, 2015 [*"honors a person who, over many years, has dedicated effort to use unbiased, peer-reviewed scientific information to alert the public to the dangers of natural hazards and a changing environment"*]  
Recipient of *Plant Species Biology* Best Paper of 2008 for paper co-authored with Jennifer Ramp and Tom Ranker  
"Tracking plague in the plains," Cover story for University of Nebraska Arts & Sciences Alumni magazine *Columns*, Summer 2005 (<http://ascweb.unl.edu/alumni/columns.html>)  
University of Colorado CRCW Faculty Fellowship, 2005-2006  
Aldo Leopold Leadership Fellowship, 2004  
Organization for Tropical Studies "Tropical Biology" selected participant, 1993  
Honorable Mention, National Science Foundation Graduate Fellowship, 1986  
Best Paper Award, Student Symposium, University of Nebraska, 1986  
Jessie Lee Fellowship, University of Nebraska, 1986  
International 4-H Youth Exchange representative to Luxembourg, 1983

### **RESEARCH AND CREATIVE WORKS**

#### **Books and edited volumes**

**Collinge, S.K.** 2009. *Ecology of fragmented landscapes*. Johns Hopkins University Press, Baltimore, Maryland, USA. 360 pp.  
Limerick, P.N., A. Cowell, and **S.K. Collinge**. (Editors). 2009. *Remedies for a New West: Healing Landscapes, Histories, and Cultures*. University of Arizona Press, Tucson, AZ. 320 pp.  
**Collinge, S.K.** and C. Ray (Editors). 2006. *Disease ecology: community structure and pathogen dynamics*. Oxford University Press, Oxford, UK. 240 pp.  
**Collinge, S.K.** (Editor). 2001. *Special Issue: Spatial ecology and biological conservation. Biological Conservation* 100(1):1-150.

#### **Symposia and oral sessions organized**

Gram, W. and **S.K. Collinge**. "NEON Resources for your research." Workshop at annual meeting of the Ecological Society of America, August 6, 2018.  
**Collinge, S.K.**, A. Novy, and A. Felson. "Green cities: Ecology and design in urban landscapes," Symposium at Ecological Society of America, August 2014, Sacramento, CA.  
Kneitel, J.M., K.S. Boersma, M. Bogan, and **S.K. Collinge**. "Islands in space and time: Population and community ecology of temporary aquatic habitat in Mediterranean regions." Organized oral session at Ecological Society of America, August 2014, Sacramento, CA.  
Evans, D.M., T. Houston, and **S.K. Collinge**. "Innovations for endangered species recovery." Organized oral session at Ecological Society of America, August 2014, Sacramento, CA.  
Ray, C. and **S.K. Collinge**. "Climate change and disease ecology: challenges to the restoration and maintenance of suitable pestilence," Symposium at Ecological Society of America, August 2007, San Jose, CA.

- Collinge, S.K.** and C. Ray. “Emerging diseases: stressing the union of community ecology and epidemiology,” Symposium at Ecological Society of America, August 2003, Savannah, GA.
- Collinge, S.K.** “Spatial ecology and conservation,” Symposium at Society for Conservation Biology, June 2000, Missoula, MT.

### **Manuscripts in preparation**

- Kneitel, J. M. and **S.K. Collinge**. *In prep*. It’s time for time: spatial and temporal linkages in heterogeneous ecosystems. Invited *Ideas and Perspectives* paper for *Ecology Letters*.
- Collinge, S.K.** and A.M. Faist. *In prep*. Experimental manipulation of environmental conditions and feedbacks to enhance restored California vernal pools. For submission to *Restoration Ecology*.

### **Peer-reviewed journal publications (\*denotes student author that is my advisee; #denotes student author of a collaborator):**

61. Dornelas M, Antão LH, Moyes F, et al. 2018. BioTIME: A database of biodiversity time series for the Anthropocene. *Global Ecology and Biogeography* 27:760-786 <https://doi.org/10.1111/geb.12729>.
60. \*Javornik, C.: and **S.K. Collinge**. 2016. Influences of annual weather variability on vernal pool plant abundance and community composition. *Aquatic Botany* 134:61-67.
59. \*Schlatter, K.J.:, \*A.M. Faist, and **S.K. Collinge**. 2016. Using performance standards to guide vernal pool restoration and adaptive management. *Restoration Ecology* 24:145-152.
58. \*Faist, A.M.:, P. Collinge, I. Schwartz, and **S.K. Collinge**. 2015. Aliens invade and drop off litter. *Science Scope*, January: 3-10. [Note: *Science Scope* is the National Science Teacher Association’s peer-reviewed journal for middle level and junior high school science teachers; we published an exercise related to our NSF LTREB grant on which we collaborated with an underserved middle school in Kansas].
57. \*Faist, A.M.:, \*J.M. Ramp Neale, \*B. Mines, and **S.K. Collinge**. 2015. Maintenance of pollinator function in restored vernal pools: Gnats filling the role of solitary bees. *Ecological Restoration* 33(1):51-60; <http://dx.doi.org/10.3368/er.33.1.51>.
56. \*Faist, A.M.: and **S.K. Collinge**. 2015. Seed bank composition varies along invasion and inundation gradients in vernal pool wetlands. *Plant Ecology* 216:553–564; <http://dx.doi.org/10.1007/s11258-015-0458-8>
55. Ray, C. and **S.K. Collinge**. 2014. Quantifying the dominance of local control and the sources of regional control in the assembly of a metacommunity. *Ecology* 95:2096-2108.
54. **Collinge, S.K.**, C. Ray, and J.T. Marty. 2013. A long-term comparison of hydrology and plant community composition in constructed versus naturally occurring vernal pools. *Restoration Ecology* 21(6): 704-712. DOI: 10.1111/rec.12009.
53. #Sackett, L.C.:, **S.K. Collinge**, and A.P. Martin. 2013. Do pathogens reduce genetic diversity of their hosts? Variable effects of sylvatic plague in black-tailed prairie dogs. *Molecular Ecology* 22(9): 2441-2455. DOI: 10.1111/mec.12270.
52. \*Faist, A.M.:, #S. Ferrenberg, and **S.K. Collinge**. 2013. Banking on the past: Seed banks as a reservoir for rare and native species in restored vernal pools. *AoB PLANTS* 5: plt043; doi:10.1093/aobpla/plt043.
51. #Sackett, L.C.:, Todd B. Cross, #Ryan T. Jones, \*Whit Johnson, Kimberly Ballare, Chris Ray, **Sharon K. Collinge**, and Andrew P. Martin. 2012. Connectivity of prairie dog colonies in an altered landscape: inferences from analysis of microsatellite DNA variation. *Conservation Genetics* 13: 407-418.
50. #Johnson, T.L.:, J.F. Cully, Jr., **S.K. Collinge**, C. Ray, C. Frey, and B. Sandercock. 2011. Spread of sylvatic plague among black-tailed prairie dogs is associated with colony spatial characteristics. *Journal of Wildlife Management* 75:357-368.
49. **Collinge, S.K.**, C. Ray, and \*F. Gerhardt. 2011. Long-term data on vernal pool plant communities reveal formerly cryptic effects of biotic resistance to exotic species invasion. *Ecological Applications* 21:2105-2118.

48. \*Brinkerhoff, R. Jory, A.P. Martin, #R.T. Jones, and **S.K. Collinge**. 2011. Population genetic structure of the prairie dog flea and plague vector, *Oropsylla hirsuta*. *Parasitology* 138:71-79.
47. Cully, J.F., Jr., **S.K. Collinge**, \*W.C. Johnson, C. Ray, #B. Thiagarajan, \*D.B. Conlin, and #B. Holmes. 2010. Spatial variation in keystone effects: small mammal diversity associated with black-tailed prairie dog colonies. *Ecography* 33:667-677.
46. Torres-Pérez, F., L. Wilson, **S.K. Collinge**, H. Harmon, C. Ray, R.A. Medina, and B. Hjelle. 2010. Sin Nombre Virus infection in field workers, Colorado, USA. *Emerging Infectious Diseases* 16(2):308-310.
45. \*Brinkerhoff, R.J., **S.K. Collinge**, C. Ray, and K.L. Gage. 2010. Rodent and flea abundance fail to predict a plague epizootic in black-tailed prairie dogs. *Vector-Borne and Zoonotic Diseases* 10(1):47-52.
44. Cully, J.F., Jr., #T.L. Johnson, **S.K. Collinge**, and C. Ray. 2010. Disease limits populations: plague and black-tailed prairie dogs. *Vector-Borne and Zoonotic Diseases* 10(1):7-15.
43. **Collinge, S.K.** and C. Ray. 2009. Transient patterns in the assembly of vernal pool plant communities. *Ecology* 90(12):3313-3323.
42. Bai, Y., M.Y. Kosoy, C.H. Calisher, J.F. Cully, Jr., and **S.K. Collinge**. 2009. Effects of rodent community diversity and composition on prevalence of an endemic bacterial pathogen – *Bartonella*. *Biodiversity* 10(4):3-11.
41. \*Brinkerhoff, R.J., **Sharon K. Collinge**, Ying Bai, and Chris Ray. 2009. Are carnivores universally good sentinels of plague? *Vector-Borne and Zoonotic Diseases* 9(5):491-497.
40. Snäll, T, R.B. O'Hara, C. Ray and **S.K. Collinge**. 2008. Climate-driven spatial dynamics of plague among prairie dog colonies. *American Naturalist* 171(2):238-248.
39. \*Ramp, J.M., T.A. Ranker, and **S.K. Collinge**. 2008. Conservation of rare species with an island-like distribution: a case study of *Lasthenia conjugens* (Asteraceae) using population genetic structure and distribution of rare markers. *Plant Species Biology* 23:97-110. [Was selected as recipient of *Plant Species Biology* Best Paper of 2008].
38. Bai, Y., M.Y. Kosoy, A. Martin, C. Ray, K. Sheff, L. Chalcraft and **S.K. Collinge**. 2008. Characterization of *Bartonella* strains isolated from black-tailed prairie dogs (*Cynomys ludovicianus*). *Vector-Borne and Zoonotic Diseases* 8(1):1-5.
37. Bai, Y., M.Y. Kosoy, C. Ray, \*R.J. Brinkerhoff and **S.K. Collinge**. 2008. Temporal and spatial patterns of *Bartonella* infection in black-tailed prairie dogs. *Microbial Ecology* 56:373-382.
36. \*Brinkerhoff, R.J., C. Ray, #B. Thiagarajan, **S.K. Collinge**, J.F. Cully, Jr, #B. Holmes and K.L. Gage. 2008. Prairie dog presence affects occurrence patterns of disease vectors on small mammals. *Ecography* 31:654-662.
35. \*Gerhardt, F. and **S.K. Collinge**. 2007. Abiotic constraints eclipse biotic resistance in determining invasibility along experimental vernal pool gradients. *Ecological Applications* 17:922-933.
34. Bai, Y., M.Y. Kosoy, J.F. Cully, Jr., #Bala Thiagarajan, C. Ray and **S.K. Collinge**. 2007. Acquisition of non-specific *Bartonella* strains by the northern grasshopper mouse (*Onychomys leucogaster*). *FEMS Microbiology Ecology* 61:438-448.
33. Ray, C. and **S.K. Collinge**. 2007. Introducing the trophic vortex: response to Stapp. *EcoHealth* 4:122-124.
32. #Oliver, J.C., #K. L. Prudic, and **S. K. Collinge**. 2006. Boulder County Open Space butterfly diversity and abundance. *Ecology* 87:1066. [Ecological Archives E087-61](#).
31. \*Ramp, Jennifer M., Tom A. Ranker, and **Sharon K. Collinge**. 2006. Restoration genetics of the vernal pool endemic *Lasthenia conjugens* (Asteraceae). *Conservation Genetics* 7:631-649.
30. \*Marty, J.T., **S.K. Collinge**, and K.J. Rice. 2005. Responses of a remnant California native bunchgrass population to grazing, burning, and climatic variation. *Plant Ecology* 181:101-112.
29. \*Dickens, S.J., #F. Gerhardt and **S.K. Collinge**. 2005. Recreational portage trails as corridors facilitating non-native plant invasions of the Boundary Waters Canoe Area Wilderness (USA). *Conservation Biology* 19:1653-1657.

28. **Collinge, S.K.**, \*W.C. Johnson, C. Ray, R. Matchett, J. Grensten, J.F. Cully, Jr., K.L. Gage, M.Y. Kosoy, J.E. Loye, and A.P. Martin. 2005a. Testing the generality of a trophic-cascade model for plague. *EcoHealth* 2:102-112.
27. **Collinge, S.K.**, \*W.C. Johnson, C. Ray, R. Matchett, J. Grensten, J.F. Cully, Jr., K.L. Gage, M.Y. Kosoy, J.E. Loye, and A.P. Martin. 2005b. Landscape structure and plague occurrence in black-tailed prairie dogs on grasslands of the western USA. *Landscape Ecology* 20:941-955.
26. #Jones, Ryan T., Andrew P. Martin, Adam J. Mitchell, **Sharon K. Collinge**, and Chris Ray. 2005. Characterization of 14 polymorphic microsatellite markers for the black-tailed prairie dog (*Cynomys ludovicianus*). *Molecular Ecology Notes* 5:71-73.
25. \*Johnson, W.C. and **S.K. Collinge**. 2004. Landscape effects on black-tailed prairie dog colonies. *Biological Conservation* 115:487-497.
24. Townsend, A.R., R.W. Howarth, F.A. Bazzaz, M.S. Booth, C.C. Cleveland, **S.K. Collinge**, A.P. Dobson, P.R. Epstein, E.A. Holland, D.R. Keeny, M.A. Mallin, P. Wayne and A. Wolfe. 2003. Human health effects of a changing global nitrogen cycle. *Frontiers in Ecology and the Environment* 1(5):240-246.
23. **Collinge, S.K.**, #K. Prudic, and #J. Oliver. 2003. Effects of local habitat characteristics and landscape context on grassland butterfly diversity. *Conservation Biology* 17:178-187.
22. \*Gerhardt, F. and **S.K. Collinge**. 2003. Exotic plant invasions of vernal pools in the Central Valley of California, USA. *Journal of Biogeography* 30:1043-1052.
21. \*Marty, J.T., K.J. Rice, and **S.K. Collinge**. 2003. The effects of burning, grazing and herbicide treatments on restored and remnant populations of *Nassella pulchra* at Beale Air Force Base, California. *Grasslands* 13(2):1-9.
20. **Collinge, S.K.**, CA. Wise, and \*B. Weaver. 2003. Germination, early growth, and flowering of a vernal pool annual in response to soil moisture and salinity. *Madroño* 50(2):83-93.
19. **Collinge, S.K.** 2003. Constructed vernal pool seeding experiment aids in recovery of Contra Costa goldfields (California). *Ecological Restoration* 21:316-317.
18. **Collinge, S.K.** and #T.M. Palmer. 2002. The influences of patch shape and boundary contrast on insect response to fragmentation in California grasslands. *Landscape Ecology* 17 (7): 647-656.
17. **Collinge, S.K.** 2001. Introduction: spatial ecology and biological conservation. *Biological Conservation* 100(1):1-2. [Led the list of the top 25 most downloaded articles for the journal, January-December 2001; see <http://www.elsevier.com/locate/issn/00063207>].
16. **Collinge, S.K.**, M. Holyoak, \*J.T. Marty, and C. Barr. 2001. Riparian habitat fragmentation and population persistence of the Valley Elderberry Longhorn Beetle (Coleoptera: Cerambycidae) in northern California. *Biological Conservation* 100(1):103-113.
15. **Collinge, S.K.** 2000. Effects of grassland fragmentation on insect species loss, recolonization, and movement patterns. *Ecology* 81(8):2211-2226.
14. **Collinge, S.K.** and R.T.T. Forman. 1998. A conceptual model of land conversion processes: predictions and evidence from a field experiment with grassland insects. *Oikos* 82:66-84.
13. **Collinge, S.K.** 1998. Spatial arrangement of patches and corridors: clues from ecological field experiments. *Landscape and Urban Planning* 42:157-168.
12. Forman, R.T.T. and **S.K. Collinge**. 1997. Nature conserved in changing landscapes with and without spatial planning. *Landscape and Urban Planning* 37:129-135.
11. **Collinge, S.K.** 1996. Ecological consequences of habitat fragmentation: implications for landscape architecture and planning. *Landscape and Urban Planning* 36:59-77.
10. Bowers, M.D., K. Boockvar and **S.K. Collinge**. 1993. Iridoid glycosides of *Chelone glabra* (Scrophulariaceae) and their sequestration by larvae of a sawfly, *Tenthredo grandis* (Tenthredinidae). *Journal of Chemical Ecology* 19:815-823.
9. Louda, S.M. and **S.K. Collinge**. 1992. Plant resistance to insect herbivores: A field test of the environmental stress hypothesis. *Ecology* 73:153-169.
8. Bowers, M.D. and **S.K. Collinge**. 1992. Fate of iridoid glycosides in different life stages of the buckeye, *Junonia coenia* (Lepidoptera: Nymphalidae). *Journal of Chemical Ecology* 18:817-831.

7. Bowers, M.D., N.E. Stamp and **S.K. Collinge**. 1992. Early stage of a host range expansion by a specialist herbivore, *Euphydryas phaeton* (Nymphalidae). *Ecology* 73:526-536.
6. Bowers, M.D., **S.K. Collinge**, S.E. Gamble and J. Schmitt. 1992. Effects of genotype, habitat, and seasonal variation on iridoid glycoside content of *Plantago lanceolata* (Plantaginaceae) and the implications for insect herbivores. *Oecologia* 91:201-207.
5. Louda, S.M., M.A. Potvin and **S.K. Collinge**. 1990. Predispersal seed predation, postdispersal seed predation and competition in the recruitment of seedlings by a native prairie thistle. *American Midland Naturalist* 124:105-113.
4. **Collinge, S.K.** and S.M. Louda. 1989a. Influence of plant phenology on the insect herbivore/bittercress interaction. *Oecologia* 79:111-116.
3. **Collinge, S.K.** and S.M. Louda. 1989b. *Scaptomyza nigrita* Wheeler (Diptera: Drosophilidae), a leaf miner of the native crucifer, *Cardamine cordifolia* A. Gray (Bittercress). *Journal of the Kansas Entomological Society* 62:1-10.
2. **Collinge, S.K.** and S.M. Louda. 1988a. Herbivory by leaf miners in response to experimental shading of a native crucifer. *Oecologia* 75:559-566.
1. **Collinge, S.K.** and S.M. Louda. 1988b. Patterns of resource use by a drosophilid (Diptera) leaf miner on a native crucifer. *Annals of the Entomological Society of America* 81:733-741.

### **Book chapters and conference proceedings**

- Collinge, S.K.** 2009. Reversing the trend of habitat loss in the American West: the uncertain promise of ecological restoration. In P.N. Limerick, A. Cowell, and S.K. Collinge (editors), *Remedies for a New West*. University of Arizona Press, Tucson, AZ, pp. 95-111.
- Collinge, S.K.** and C. Ray. 2009. Ecology and restoration of vernal pools: a ten-year study of plant community dynamics. In Fraga i Arguimbau, P. (ed.), *International Conference on Mediterranean Temporary Ponds: Proceedings & Abstracts*. Consell Insular de Menorca. Recerca, 14. Maó, Menorca. pp. 281-290.
- Collinge, S.K.**, C. Ray, and J.F. Cully, Jr. 2008. Effects of disease on keystone species, dominant species, and their communities. Pp. 189-213 in R.S. Ostfeld, F. Keesing and V. Eviner, (eds.), *Infectious disease ecology: effects of ecosystems on disease and of disease on ecosystems*. Princeton University Press, Princeton, NJ.
- Ray, C. and **S.K. Collinge**. 2006. Potential effects of a keystone species on the dynamics of sylvatic plague. pp. 204-218 in S.K. Collinge and C. Ray (editors), *Disease ecology: community structure and pathogen dynamics*, Oxford University Press, Oxford, UK.
- Huxel, G.R., M. Holyoak, T.S. Talley, and **S.K. Collinge**. 2003. Perspectives on the recovery of the threatened valley elderberry longhorn beetle. Pp. 457-462 in: P.M. Faber (ed.), *California Riparian Systems: Processes and floodplains management, ecology, and restoration*. 2001 Riparian habitat and floodplains conference proceedings, Riparian Habitat Joint Venture, Sacramento, CA.
- Forman, R.T.T. and **S.K. Collinge**. 1996. The “spatial solution” to conserving biodiversity in landscapes and regions. In R.M. DeGraaf and R.I. Miller (eds.), *Conservation of Faunal Diversity in Forested Landscapes*, pp. 537-568. Chapman and Hall, London.
- Louda, S.M., M.A. Potvin and **S.K. Collinge**. 1992. Predispersal seed predation in the limitation of native thistle. pp. 30-32 in S.B.J. Menken, J.H. Visser and P. Harrewijn (eds.), *Proceedings of the 8th International Symposium on Insect-Plant Relationships*. Kluwer Academic Publishers, Dordrecht.

### **Invited contributions**

- Collinge, S.K.** 2018. NEON is your observatory. Invited guest editorial for *Frontiers in Ecology and the Environment*, doi:10.1002/fee.1939.
- Collinge, S.K.** 2010. Pròleg (Foreword; invited). Pp. 13-14 in P. Fraga, I. Estaubert, and E. Cardona (ed.), *Basses temporal mediterrànies. LIFE BASSES: gestió i conservació a Menorca*. Consell Insular de Menorca, Institut Menorquí d’Estudis, Maó, Menorca.
- Collinge, S.K.** 2010. Spatial Ecology and Conservation. *Nature Education Knowledge* 1(8):69.

### **Invited book reviews**

- Collinge, S.K.** 1999. Review of Nassauer, J. (Editor). 1997. Placing Nature: Culture and Landscape Ecology. *LandForum* 01:28.
- Collinge, S.K.** 1997. Review of McCullough, D.R. (Editor). 1996. Metapopulations and Wildlife Conservation. *American Zoologist* 37(6):653-654.

### **Additional technical publications (non-peer reviewed)**

- Collinge, S.K.** 2007. Vernal pool impact survey, 2007. Travis Air Force Base, California. 21 pp.
- Collinge, S.K.** 2006. Vernal pool impact survey, 2006, Travis Air Force Base, California. 16 pp.
- Collinge, S.K.** 2005. Aero Club monitoring report, Travis Air Force Base, California: vernal pool mitigation and monitoring activities, January 2000-May 2005. 25 pp.
- Collinge, S.K.** 2002. Vernal pool and endangered species mitigation for Travis Air Force Base, California: Implementation and monitoring report, Year 2. 19 pp.
- Collinge, S.K.** 2001. Vernal pool and endangered species mitigation for Travis Air Force Base, California: Implementation and monitoring report, Year 1. 23 pp.
- Collinge, S.K.** 1999. Vernal pool and endangered species mitigation for Travis Air Force Base, California: Mitigation plan. 34 pp.

### **Media products**

- “In search of honey bloom,”** Video produced by [impactmedialab.com](http://impactmedialab.com) in collaboration with S.K. Collinge to document experiences and scientific findings from a 20-year restoration experiment in California vernal pools. Winner of the category: Documentary < 10 min at the Raw Science Film Festival, Santa Barbara, CA, January 2018. <https://vimeo.com/228005015>
- “Climate change and extinction risk,”** Interview for “Hemispheres” radio program, aired on KGNU, Boulder, February 10, 2004 (with Alan Townsend).
- Collinge, S.K.** Reversing habitat loss in the West. Invited column for *Boulder Daily Camera*, March 30, 2003.
- Collinge, S.K.** Endangered species: let’s not fool ourselves. Invited column for *Boulder Daily Camera*, May 27, 2001.

### **Recent invited presentations**

- Invited panel moderator,** Boulder Apple Tree Symposium, SEEC Auditorium, December 7, 2019
- “Community engagement for sustainability in Boulder, Colorado,”** University of Wisconsin-Madison’s “Wisconsin Ecology Fall Symposium,” Keynote speaker, October 14, 2019
- “The magical world of California vernal pools: *Lessons from a long-term restoration experiment,*”** University of Wisconsin-Madison’s “Wisconsin Ecology Fall Symposium,” Keynote speaker, October 15, 2019
- Invited panel moderator, "Unpacked: Professional Insights on Careers & Trends in Sustainability,"** Masters of the Environment professional graduate program, CU Boulder, The Post Brewing, Boulder, CO, April 10, 2019
- Invited panelist, "Public Health through Climate Action,"** hosted by Conservation Colorado and Colorado's Climate Future, Mother Tucker Brewery, Thornton, CO, March 28, 2019
- “NEON progress in engaging the scientific community,”** Southern Sierra Critical Zone Observatory (CZO) Annual Meeting, Berkeley, CA, October 17, 2018
- “Next generation synthesis: NEON progress in engaging the ecological community,”** Keynote speaker, LTER All Scientists Meeting, Asilomar, CA, October 2, 2018
- “Spatial and temporal dynamics of ecological systems: Perspectives from western US grasslands,”** National Ecological Observatory Network (NEON) headquarters, Boulder, CO, October 4, 2017
- “Long term trajectories of plant communities in restored California vernal pools,”** University of California-Davis Department of Plant Sciences, November 14, 2016

- “How can we maximize biodiversity in urbanizing regions?”** Urban Ecology Symposium, University of Zurich, August 26, 2016
- “Introduction to the documentary, ‘Racing Extinction:’ Two decades of research on habitat loss, fragmentation, and restoration,”** Breckenridge Film Festival, Breckenridge, CO, May 26, 2016
- “Our open space lands: The next 50 years, scenarios for the future,”** CU-Boulder 2015-16 Community Colloquium Series, Moderator, April 28, 2016
- “Long term trajectories of plant communities in restored California vernal pools,”** National Science Foundation Division of Environmental Biology, February 8, 2016
- “One Park, Many Perspectives: An Exploration of Rocky Mountain National Park at its Centenary,”** CU-Boulder Friends of the Libraries, Moderator, March 5, 2015
- “Bridging science and design: Ecologists reflect on constructing habitats,”** Annual meeting of the American Society of Landscape Architects, Denver, CO, November 24, 2014
- “Long-term trajectories of restored plant communities: A view from vernal pools in California’s Central Valley,”** Harvard Forest, November 14, 2014
- “Trends and thoughts on biodiversity protection, food production, and wildlife-related public health in urbanized landscapes,”** Keynote address for symposium, “Ecology of Land and City,” Harvard University Graduate School of Design, September 13, 2013 [trip cancelled due to Boulder floods]
- “Sustainable food systems: going beyond ‘The Omnivore’s Dilemma,’”** CU Seminar, September 6, 2013 (lecture to 25 alumni and friends of CU as part of Chancellor’s fundraising efforts)
- “Food fights: From GMOs to farmed salmon,”** Scripps Fellows, Center for Environmental Journalism, CU-Boulder, January 2012
- “Linking ecological theory with restoration: The view from the magical world of California vernal pools,”** Denver University Department of Biological Sciences Colloquium, February 20, 2012
- “Defining a career pathway,”** Investigating Careers in the Environment Series, ENVS Program, CU-Boulder, September 2012
- “Sustainable food systems: Going beyond ‘The Omnivore’s Dilemma,’”** Environmental Studies Colloquium Series, University of Colorado-Boulder, October 2011
- “Ecological restoration of imperiled plant communities,”** Coalition for National Science Funding Exhibit and Reception, Rayburn House Office Building, Washington, DC, May 2011 (poster)
- “Running the numbers: portraits of mass consumption,”** Invited speaker and panelist for opening of exhibition of the same name by artist Chris Jordan, University of Colorado Museum of Natural History, January 2011
- “The effects of excessive nutrients in vernal pools,”** Jamie Kneitel, Russell Croel, and **Sharon K. Collinge**, Seventeenth Annual Meeting of the California Aquatic Bioassessment Workgroup, Davis, CA, November 2010
- “Linking ecological theory with restoration: A ten-year study of plant community dynamics in California vernal pools,”** Organized Oral Session on Long-term research in Environmental Biology (LTREB) projects, Ecological Society of America 95<sup>th</sup> Annual Meeting, Pittsburgh, PA, August 2010
- “The magical world of California vernal pools: links between ecological theory and restoration,”** Rutgers University Department of Ecology and Evolution, March 2010

### **Recent contributed papers delivered at professional meetings**

- “Long-term trajectories of plant communities in restored California vernal pools.”** S.K. Collinge and A.M. Faist, Ecological Society of America 99<sup>th</sup> Annual Meeting, Sacramento, CA, August 2014
- “Constructing alternate states: Invasive seed bank dominance in restored versus reference vernal pools,”** Akasha Faist and S.K. Collinge, Ecological Society of America 98<sup>th</sup> Annual Meeting, Minneapolis, MN, August 2013
- “Habitat quality versus connectivity: Pool depth rivals isolation in determining the presence and cover of a dispersal-limited flora endemic to vernal pools,”** S.K. Collinge and Chris Ray,

- Ecological Society of America 97<sup>th</sup> Annual Meeting, Portland, OR, August 2012
- “Vernal pool soil properties and their role in restoration success,”** A.M. Faist, S.P. O’Neill, D.R. Nemergut, and S.K. Collinge, Ecological Society of America 97<sup>th</sup> Annual Meeting, Portland, OR
- “Reflections on vernal pool plant community restoration: Three lessons from a long term field experiment,”** S.K. Collinge and Chris Ray, Ecological Society of America 96<sup>th</sup> Annual Meeting, Austin, TX, August 2011
- “Characterization of soil seed banks in California vernal pools: Links to restoration success,”** A. Faist, S.K. Collinge, and Chris Ray, Ecological Society of America 96<sup>th</sup> Annual Meeting, Austin, TX, August 2011
- “Recolonization after sylvatic plague increases genetic diversity in prairie dog populations,”** L. Sackett, S.K. Collinge, and A. Martin, Evolution 2011, Norman, Oklahoma, June 2011
- “Sylvatic plague extirpation causes evolution in prairie dogs,”** L. Sackett, A. Martin, and S.K. Collinge, Evolution 2010, Portland, Oregon, June 2010 (Poster)

### **Invited participation in scientific workshops**

- “Applying Coexistence Theory to Restoration Ecology and Adaptive Management,”** Working Group organized by Lauren Shoemaker, Lauren Hallett and Akasha Faist at the Synthesis Centre (sDiv) of the German Centre for Integrative Biodiversity Research (iDiv), Leipzig, October 2019 and June 2020
- “Sustainability Science 2.0: A US National Dialogue Series,”** hosted by Future Earth, in partnership with the National Academies of Sciences, Engineering and Medicine’s Science and Technology for Sustainability Program; the University of Colorado-Boulder; Colorado State University; and George Mason University, Denver, CO May 24, 2019
- “Science and MultiSpecies Habitat Conservation Plans,”** Center for Conservation Biology, University of California-Riverside Palm Desert campus, May 2007 [Organized by Edith Allen & Mike Allen]
- “Ecosystem services in southwestern grasslands: bridging the divide between producers and consumers,”** The Research Ranch Foundation, October 2006, Tucson, AZ [Organized by Jane Bock, Guy McPherson, and Elizabeth Murfee DeConcini]
- “Vulnerability of natural resources to societal actions and climate change: The South Platte Integrated Assessment,”** September 2002, Pingree Park, CO [Organized by Jill Baron]
- “Human health effects of a changing nitrogen cycle,”** National Center for Ecological Analysis and Synthesis (NCEAS), March 2002, Santa Barbara, CA [Organized by Alan Townsend and Robert Howarth]
- “Ecologically Functioning Populations,”** Wildlife Conservation Society, November 2001, White Oak Plantation, Yulee, FL [Organized by Pete Copollilo, Eric Sanderson, and Kent Redford]
- “Linking large-scale hydrological and biological processes in restoring riparian forest ecosystems,”** NSF Biocomplexity Program incubation project, February 2000, Chico, CA [Organized by Karen Holl, Elizabeth Crone, Matt Kondolf and Nadav Nur]

## **TEACHING ACCOMPLISHMENTS**

### **Courses taught**

(\*denotes development of new course or extensive revision of existing course)

### ***Undergraduate courses***

#### **University of Colorado-Boulder**

- \***Leadership for Environmental Sustainability:** ENVS 4100 (3-unit project-based course), 2019
- Introduction to Environmental Studies:** ENVS 1000 (4-unit lecture/recitation course), 2017, 2020
- \***Introduction to Sustainability:** SUST 2800 (1-unit discussion course at SSI RAP), 2015
- \***Food and the Environment:** ENVS 4120 (3-unit lecture and discussion course), 2011, 2012, 2013

- General Biology:** EBIO 1220 (3-unit lecture course co-taught with Pieter Johnson), 2007, 2008
- \*Conservation Biology:** EPOB 4040/5040/ENVS 4040 (3-unit lecture course), 1998, 1999, 2001, 2002, 2003, 2004, 2009, 2011, 2013 (Note: In 2002, this course was changed to EPOB 3040 and revised accordingly; in 2004 this course was increased to 4 units with the addition of recitation sections)
- \*Critical thinking in Biology:** Spatial issues in conservation biology: EPOB 4800 (3 unit lecture and discussion course), 1998
- \*Critical thinking in Environmental Studies:** Conservation biology and planning: ENVS 4800 (new 3-unit lecture and discussion course), 1999-2002, 2004

#### University of California-Davis

- \*Introduction to Landscape Ecology:** LDA 153 (new 3-unit lecture course), 1997, 1998
- \*Landscape Architecture Studio:** Design and Planning for Habitat Conservation and Restoration: LDA 183 (4-unit studio course), 1997, 1998
- \*Landscape Architecture Field Studio:** LDA 170 (new 12-unit three-instructor studio course emphasizing field trips and field exercises), 1997
- \*Site Ecology:** LDA 50 (new 4-unit lecture/laboratory course), 1997, 1998
- Proseminar in Landscape Architecture:** LDA 190 (one-unit undergraduate seminar), 1996

#### *Graduate courses*

##### University of Colorado-Boulder

- \*The Scientific Basis of Environmental Change:** ENVM 6100 (3-units), Augmester 2020
- \*Applications of Environmental Change: ENVM 6101 (1-unit), Augmester 2020**
- \*Capstone Innovation Lab 3:** ENVM 6003 (1-unit), 2017
- \*Foundations of Environmental Leadership:** ENVM 5001 (3-units), 2016, 2017
- \*Policy, Science and the Environment:** ENVS 5000 (3-units), 2014, 2015 (co-taught 3-week module on “Sustainable Food Systems” with Assistant Professor Peter Newton, 2016, 2017)
- \*Environmental Science:** ENVS 5002 (3-units), 2007, 2008, 2009, 2010, 2012
- Graduate seminar: Ecology of Fragmented Landscapes:** EBIO 6100 (1-unit), 2010
- Graduate seminar in Restoration Ecology:** EBIO 6100 (3-units), 2009
- Graduate seminar in Conservation Biology:** EPOB 6100 (2-units), 1999, 2001, 2004

##### University of California-Davis

- \*Landscape Conservation:** LDA 280 (3-unit graduate course), 1997
- Graduate Seminar in Ecology:** ECL 290 (one-unit seminar): Macroecology, 1996
- Graduate Seminar in Ecology:** ECL 290 (one-unit seminar): Conservation Ecology, 1997
- Graduate Seminar in Ecology:** ECL 290 (one-unit seminar): Restoration Ecology, 1998
- \*Core graduate course in Ecology:** ECL 200B; developed new three-week module, Ecosystem and Landscape ecology, 1998

#### *Guest lecturer*

- ENVD 4972, Advanced Research Methods, 2015
- ENVD 3003, Site Planning, 2013
- ENVS 1000, Introduction to Environmental Studies, 2003, 2004, 2006, 2007, 2008, 2011, 2014
- EBIO 3630, Parasitology, 2010
- EBIO 4800, Disease Ecology, 2007, 2010
- ENVS 5002, Science, Policy, & Values, 2012, 2013
- EBIO 6000, Introduction to Biological Research, 1999-2004, 2007, 2009, 2011
- EBIO 6100, Science Communication, 2012
- Study Leader, China Natural History Expedition, Harvard Museum of Natural History, 2007
- The Gilder-Lehrman Institute, Center of the American West, CU-Boulder, July 2005, 2006

Lecturer, *Wild and Ancient Britain* expedition, Harvard Museum of Natural History, 2006  
Panel on “Creativity in Science,” The Art and Science of Climate Change (ENVS 4100), 2006  
Study Leader, Costa Rica Natural History Expedition, Harvard Museum of Natural History, 2006

### **Individualized research instruction**

#### ***Postdoctoral research associates***

Tord Snäll, Research Associate, 2005-2007, modeling disease spread in prairie dogs  
Bai Ying, Research Associate, 2003-2007, molecular biology of bacterial pathogens in grassland rodents (housed at CDC in Ft. Collins)  
Chris Ray, Research Associate, CU, 2000-2013, disease dynamics in prairie dogs, vernal pool metacommunity dynamics  
Carla A. Wise, CU, vernal pool plant population genetics, 1998-99

#### ***Major professor and primary advisor for graduate students***

##### PhD students

Akasha Faist, EBIO, 2010-2015, vernal pool ecology and restoration, Ph.D. completed 2015  
Mari Elise Ewing, ENVS, 2007-2015, science and policy of grassland restoration, Ph.D. completed 2015  
Jennifer Wilkening, EBIO, 2009-2014 pika ecology and conservation, Ph.D. completed 2014  
Jory Brinkerhoff, EBIO, 2003-2008, disease ecology in fragmented landscapes, Ph.D. completed 2008  
Ellen Bean, ENVS, 2004-2005, conservation ecology and policy, terminated program January 2006  
Fritz Gerhardt, EBIO, 2000-2003, abiotic and biotic controls of plant invasions, Ph.D. completed 2003  
Jennifer Ramp, EBIO, 2002-2005 (co-advisor), vernal pool plant genetics, Ph.D. completed 2005  
Susana Maria Rodriguez-Pastor, EBIO, 1999-2009, PhD, habitat conservation, terminated program 2009  
Jaymee Marty, UC-Davis, Ecology, 1996-1998, native grassland ecology, Ph.D. completed (with Advisor Kevin Rice, 2002)

##### Masters students

Karen Schlatter, ENVS, 2013-2016, riparian restoration ecology, MA completed 2016  
Christopher Javornik, EBIO, 2012-2014, climate variation and vernal pool plant ecology, BA/MA completed 2014  
Katherine McClure, EBIO, 2006-2009, prairie dog demography, M.A. completed May 2009  
David Conlin, EBIO, 2002-2005, rodent ecology in fragmented grasslands, M.A. completed 2005  
Amelia Markeson, EBIO, 2002-2005, prairie dog disease ecology, M.A. completed 2005  
Kimberly Kosmenko, ENVS, 2003-2004, prairie dog conservation policy, M.S. completed 2004  
Whitney Johnson, EBIO, 1999-2002, prairie dog ecology and conservation, M.A. completed 2002  
Rebecca Rawlinson, EBIO, 1999-2002, invasive species in mixed-grass prairies, M.A. completed 2002  
Diana Hershey, UC-Davis, 1997-1998, riparian plant community restoration, M.S. completed 1999

#### ***Primary advisor for independent study and research***

2013, Independent study, Melanie Kellai, EBIO  
2012, Independent study: Brita Mines, EBIO; Zach Gallien, ENVS; Jeffrey Spitz, ENVS (BURST Awardee)  
2010, Honor's thesis advisor, James Fogg, science and policy of wolf reintroduction  
2009, Honors' thesis advisor, Rachael Zacks, co-infection of pathogens in *Peromyscus maniculatus*  
2007, Independent study: Emily Mertz and Katherine McClure (graduate students), landscape ecology; Melissa Ford, ecological design and planning  
2006, Independent research: Lara Juliussen, West Nile virus prevalence in Colorado (co-advisor), Jonathan Howison, insect abundance and diversity on and off prairie dog colonies  
2004, Internship program, Chelsea Morgan  
2003, Independent research: Anna Mukherjee  
2002, Independent research: Sara Jo Dickens, Abby Benson  
2000, Independent research: Brian Weaver, Shannon Kennedy, Alan Michael Bauer, Lindsey House

1999, Independent study/research: Dan Rosie, Nick Intagliata, Tim Dunning  
1998, Internship program, Sarah Dykes  
1997, UC-Davis, Senior projects in Landscape Architecture: Gayle Totton, Diana Hershey, Angelo Claudio, Carl Jensen, Jahalel Lee Tuil, Erin Jones  
1996, UC-Davis, Senior projects in Landscape Architecture: Rita Frink, Rochsong Bishop, David Steinbauer, Stephanie Pearson

***Student research training (field assistants and research technicians)***

2009-2012, vernal pool ecology: William Hamilton  
2007, rodent disease ecology: Katherine McClure, Loren Sackett  
2006, rodent disease ecology: Peter Alexander, Amy Bradley, Sarah Day, Matt McKibben  
2005, rodent disease ecology: Shea Armstrong, Chelsea Beebe, Zoey Chance, Teresa Chapman, Bryn Gaertner, Noelle Guernsey, Kristen Hoogheem, Samie Jorgensen, Jennifer Kendrick, Nathan Kanner, Matt McKibben, Christina Murphy, Loren Sackett, Steven Wilkes  
2004, rodent disease ecology: Chelsea Beebe, Nora Bruennel, Colin Gottlieb, Kristen Hoogheem, David Napior, Natalie Robinson, Amanda Smith, Cristi States, Elizabeth Tronstein, Sarah Wylie, Mike Zook  
2003, rodent disease ecology: Rishi Ariola-Tirella, Marie Backgren, Ellen Bean, Abby Benson, Katherine Cullen, Vladimir Dinets, Mitch Eaton, Ellen Howard, Melanie Kaknes, Jessica McCrea, Cristi States, Valerie Tierce  
2001-2002, vernal pool ecology: Eric Toonder  
1999-2000, butterfly diversity in grassland fragments: Jeff Oliver, Katy Prudic, Andrew Pattison, Heidi Kippenhan  
1999-2000, vernal pool ecology: Charles Battaglia, Justin Compton, Kristi Zwicker, Tug Levy  
1998-1999, vernal pool ecology: Whit Johnson  
1997-1998, riparian ecology and restoration: Ben Eggert

**Individualized professional instruction**

***Capstone advisor for Masters of the Environment program***

2018

Ana Bogusky, In This Together Media  
Brad Cory, The Nature Conservancy of Colorado  
Alisha Murray, Sam Henke, Maia Reed, Max Sheehy, Boulder Organic!  
Tanner Starbard, Anna-Karin Li, Mad Agriculture  
Donna Merten and Michelle Graham, Generator Real Estate and Development

2017

Andrew Cahill, Green Sports Alliance  
Whitney Dodd and Joseph Stein, Aspen Skiing Company  
Kathryn Browning, Neil Brandt, Rachel Meier, Alec Brazeau, The Nature Conservancy of Colorado  
Angelica Alexander, National Parks Conservation Association  
Katherine Rogers, Where There Be Dragons  
Tracy Kessner, Ecocycle  
Jennifer Shriver, Southwest Energy Efficiency Project

**Professional development in teaching**

Participated in teaching performance workshop with EPOB Assistant Professors, 2000  
Invited a classroom consultant to EPOB 4040 and ENVS 4800 through Faculty Teaching Excellence Program (FTEP), discussed teaching performance following classroom observation, 1999  
Participated in FTEP workshop, "Establishing a teaching portfolio, Parts I and II," 1999  
Participated in the Area Teaching Scholars Program, FTEP, 1998-1999

Invited a classroom consultant from Teaching Resources Center, UC-Davis, to conduct "Student feedback evaluation service," in LDA 153, 1999

## **SERVICE AND OUTREACH ACTIVITIES**

### **Membership in professional organizations**

Ecological Society of America, Society for Conservation Biology, Organization for Tropical Studies, International Association for Landscape Ecology

### **Service to professional organizations**

Section Editor, *Current Landscape Ecology Reviews*, 2014-2018

Elected as *Vice President for Public Affairs*, Ecological Society of America, 2011-2014

Member of Scientific Program Committee, 54<sup>th</sup> International Symposium for the International Association for Vegetation Science (IAVS), Lyon, France, June 20-24, 2011

Newsletter Editor, Society for Conservation Biology, 2010-2011 (edited 8 issues of quarterly newsletter)

Invited presenter, "Meet the press: talking ecology with the media," Ecological Society of America 94<sup>th</sup> Annual Meeting, Albuquerque, NM, August 2009

Member of Rapid Response Team for "Disease Ecology," Ecological Society of America, 2007-present  
Editorial Board, *Ecological Applications*, 2007-2012

Member of *ad hoc* Ecological Society of America committee to review Editor-in-Chief, 2006

Invited presenter, Aldo Leopold Leadership Program workshop, "Bridging the worlds of science and journalism: working with the media," Ecological Society of America 91<sup>st</sup> Annual Meeting, Memphis, TN, August 2006

Invited presenter, "How to succeed in ecology: advice from senior scientists and rising stars," Ecological Society of America 90<sup>th</sup> Annual Meeting, Montréal, Canada, August 2005

Chair of Infectious Diseases subcommittee, National Ecological Observatory Network (NEON) Design Consortium, 2004-2005

Elected as *Member-at-Large* to Governing Board of Ecological Society of America, 2001-2003

Invited panelist, "Dealing for your future: negotiating salary, start-up, and other essentials in academic hiring," Ecological Society of America 86<sup>th</sup> Annual Meeting, Madison, WI; 2001

Assigning Editor for the journal *Conservation Biology*, 2000-2001

Reviewer for professional journals *Science*, *Proceedings of the Royal Society of London*, *Ecology*, *American Naturalist*, *Oecologia*, *Conservation Biology*, *Biological Conservation*, *American Midland Naturalist*, *Landscape Journal*, *Landscape Ecology*, *Ecography*, *Biodiversity and Conservation*, *Ecological Applications*, *Ecology and Society*, *Urban Habitats*, *Journal of Wildlife Diseases*, *Global Ecology & Conservation*, *Wetlands*

### **Service to government agencies**

**Invited panelist**, National Science Foundation Long Term Ecological Research (LTER) Renewal (2012), National Science Foundation Evolutionary and Population Ecology Program (2004, 2008), National Science Foundation Ecology Program (2002), National Science Foundation Biocomplexity Research Program (2000), Environmental Protection Agency Biopollution Program (2000)

**Chair**, site review team for Konza Prairie Long Term Ecological Research (LTER) grant, Sept 2017

**Chair**, site review team for Cedar Creek Long Term Ecological Research (LTER) grant, July 2015

**Grant proposal reviewer**: National Science Foundation Ecology Program (2000-present); European Science Foundation, 2019; European Research Council, 2010, CNRS (Centre National de la Recherche Scientifique) Program entitled "Maladies Infectieuses et Environnement" (Infectious Diseases and Environment), 2010, National Science Foundation Population Biology Program (2001), Wellcome Trust (2006), USDA Biology of Weedy and Invasive Plants Program (2002), CALFED Bay-Delta Program's Ecosystem Restoration Program (2002, 2005), US Fish and Wildlife Foundation (2001, 2004)

**Member**, Science Advisory Board, East Contra Costa County and City of Antioch HCP/NCCP, 2018;  
Solano County California Habitat Conservation Plan, 2002; Butte Regional Habitat Conservation  
Plan, 2007-2011  
**Reviewer**, Valley Elderberry Longhorn Beetle Recovery Plan, US Fish and Wildlife Service, 2019;  
Endangered Species Act Listing Actions Prioritization, US Fish and Wildlife Service, 2002  
**Scientific Advisor**, United States Fish and Wildlife Service Ecological Services Office, 1999-2000

### **Department/Program**

Chair, Primary Unit Evaluation Committee for faculty promotion to full professor (Litt), 2019  
Chair, Primary Unit Evaluation Committee for faculty tenure and promotion (Carrico), 2019  
Member, Primary Unit Evaluation Committee for faculty reappointment (Lawhon), 2019  
Member, Faculty search committee for Coupled Human/Natural Systems, 2019  
Member, Planning committee for development of Environmental Systems (ESYS) major, 2019-*present*  
Member, Masters of the Environment (MENV) Curriculum Committee, 2017-*present*  
Member, Masters of the Environment (MENV) DEI subcommittee, 2019  
Chair, Post-tenure review committee, ENVS, 2019  
Member, Merit review committee, ENVS, 2019  
Commencement speaker, ENVS, Spring 2019  
Organizer, Masters of the Environment (MENV) Fall and Spring workshops, 2017  
Member, Masters of the Environment (MENV) Executive Committee, 2016, 2017  
Member, ENVS Undergraduate Curriculum Committee, 2016-2018  
Chair, ENVS Space Committee, 2016  
Chair, Primary Unit Evaluation Committee for faculty reappointment (Carrico), ENVS, 2016  
Director, Environmental Studies Program, 2012-2015  
Chair, ENVS Endowed Chair Search Committee, 2011-2012  
Chair, Primary Unit Evaluation Committee for faculty reappointment, EBIO, 2011  
Member, Primary Unit Evaluation Committee for faculty promotion and tenure, ENVS, 2011  
Member, Primary Unit Evaluation Committee for faculty reappointment, EBIO, 2009  
Merit Review Committee, EBIO, 2003, 2008, 2010  
Faculty mentor for Assistant Professors Pieter Johnson and Kendi Davies, EBIO, 2007-2014  
Faculty mentor for Assistant Professor Valerie McKenzie, EBIO, 2011-2015  
Faculty mentor for Assistant Professor Lisa Dilling, ENVS, 2008-2014  
Executive Committee, ENVS, 2007-2010  
Chair, Primary Unit Evaluation Committee for faculty reappointment, ENVS, 2006  
Faculty representative for colloquium committee, EBIO, 2006-2009  
Associate Chair and Director of Graduate Program, ENVS, 2004-2005, 2006-2010  
Chair, Faculty Search Committee in Ecology, 2004-2005  
Member, Primary Unit Evaluation Committee for faculty tenure and promotion, ENVS, 2004  
Ecology search committee member, EPOB, 2002-2003  
Graduate committee member, ENVS 2001-2002  
Staff Advisor search committee member, ENVS 2001  
Space Committee, EPOB, 2001-2002  
Member of peer evaluation committee, ENVS, 2000  
Member of peer evaluation committee, EPOB, 2000  
Commencement speaker, ENVS, 2000  
Executive committee member, ENVS, 1999-2001  
Director evaluation committee, ENVS, 1999  
Executive committee member, EPOB, 1998-99  
Senior project advisor, Landscape Architecture program, UC-Davis, 1996-1998  
Graduate committee, Landscape Architecture program, UC-Davis, 1996-1998

## **College**

College of Arts and Sciences Chairs and Directors' Leadership Committee, 2012-2015  
Dean's Fund for Excellence, 2007-2009

## **Campus**

Member, Conflicts of Interest and Commitment Committee, 2019-*present*  
Member, Academic Futures Interdisciplinarity Task Force, 2019  
Member, Niwot Ridge LTER Advisory Committee, 2016-17  
Program Implementation Director, School of Environment and Sustainability, 2013-2015  
Consulting Director, Program in Environmental Design, 2015  
Provost's representative to the Academic Affairs Budget Advisory Committee, 2015  
Chair, Environment & Sustainability Visioning Committee, 2012-2013  
Member, Search Committee for Niwot Ridge LTER Principal Investigator, 2012-2013  
Member, Primary Unit Evaluation Committee for Environmental Design (ENVD), 2011-2015  
Director, Natural Sciences Area, FTEP Early Career Faculty Program, 2012-2014  
Vice Chancellor's Advisory Committee (VCAC), 2011-2013  
Graduate School Executive Advisory Council, 2007-2010  
Faculty Advisory Council, Center of the American West, 2000-2006  
Coaching Fellow, Leadership Education for Advancement and Promotion [LEAP] Program, 2002-2005  
Judge, Center of the American West Writing Awards, 2001, 2002, 2004, 2005  
Invited panelist, Graduate School Advisory Council Fall Semester Meeting, 2002  
Field trip co-leader, Scripps Institute for the Environment, 2001-2004  
Participant in Gates Scholarship Program interview preparation, 2002  
Faculty consultant, School of Education, Center for Youth in Science, Culture & NewMedia, 2001  
Delegate to Organization for Tropical Studies (OTS) Board of Directors annual meeting, 1999

## **Community service and engagement**

External reviewer, Institute on the Environment and Sustainability, Miami University of Ohio (2017),  
School of the Environment and Sustainability, University of Saskatchewan (2015), John Muir  
Institute for the Environment, UC-Davis (2013), Institute for Ecosystem Management and  
Monitoring, San Diego State University (2012), NSF/EPSCoR project on host-parasite  
interactions on heterogeneous and dynamic landscapes, University of North Dakota (2005)  
External reviewer for appointment, tenure and promotion cases: Bryn Mawr College and Georgetown  
University (2019), University of Wisconsin-Madison (2018), University of Nevada-Reno (2017),  
University of California-Davis, University of Minnesota, University of Vermont (2016), Harvard  
University, University of Illinois Urbana-Champaign (2015), UC-Santa Cruz (2013), Michigan  
Technical University (2012), CU-Denver (2011), University of California-Davis, Kansas State  
University, University of Notre Dame (2009), Drake University (2007), University of Florida  
(2006), Washington State University, (2006), Institute of Ecosystem Studies (2005), University of  
Washington-Tacoma (2004)  
Elected member of Board of Trustees, The Nature Conservancy (TNC), Colorado (2016-*present*)  
Elected member of Board of Directors, Boulder Montessori School, Boulder, CO (2011-2014)  
Science Advisor, Friends of Boulder Open Space (FOBOS) (2007-2010)  
Technical Advisor, The Nature Conservancy of Colorado (2006), The Nature Conservancy of Kansas  
(2002), Denver Botanic Garden, (2002), California State Water Resources Control Board (2000),  
Sacramento County Environmental Review (2000), Environmental Impact Report, Kings River  
Sand and Gravel Project, Sanger, CA (1998), Citizens Committee to Complete the Refuge, Palo  
Alto, CA, (1998)  
Presenter and field trip leader, Boulder Open Space and Mountain Parks volunteer training (2005)  
Invited workshop presenter and mentor, American Association of University Women, "Expanding your  
Horizons," program in math, science, and engineering for middle school girls (1999, 2000)

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