SHARON K. COLLINGE

Director, <u>Arizona Institute for Resilience</u> University of Arizona, Tucson, AZ 85719

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EDUCATIONAL BACKGROUND

Ph.D.	Harvard University	1995	Landscape Ecology
M.S.	University of Nebraska-Lincoln	1987	Biology
B.A.	Kansas State University	1985	Biology

ACADEMIC AND PROFESSIONAL APPOINTMENTS

 2010-2022	2022-present	Director, Arizona Institute for Resilience (AIR), University of Arizona, Tucson, AZ		
 2018-2019 Chief Scientist / Observatory Director, National Ecological Observatory Network (NEON), Boulder, CO (Visiting Scientist from CU-Boulder) 2012-2015 Director, Environmental Studies Program, CU-Boulder 2012-2015 Chair of the Visioning Committee and Program Implementation Director, proposed School of the Environment and Sustainability, CU-Boulder 2004-2010 Associate Director for Graduate Education, Environmental Studies Program, 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 	2010-2022			
(NEON), Boulder, CO (Visiting Scientist from CU-Boulder) 2012-2015 Director, Environmental Studies Program, CU-Boulder Chair of the Visioning Committee and Program Implementation Director, proposed School of the Environment and Sustainability, CU-Boulder Associate Director for Graduate Education, Environmental Studies Program, CU-Boulder Associate Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder	2020-2022	Executive Director, Earth Leadership Program, Future Earth US, CU-Boulder		
 2012-2015 Director, Environmental Studies Program, CU-Boulder 2012-2015 Chair of the Visioning Committee and Program Implementation Director, proposed School of the Environment and Sustainability, CU-Boulder 2004-2010 Associate Director for Graduate Education, Environmental Studies Program, 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 	2018-2019	Chief Scientist / Observatory Director, National Ecological Observatory Network		
 Chair of the Visioning Committee and Program Implementation Director, proposed School of the Environment and Sustainability, CU-Boulder Associate Director for Graduate Education, Environmental Studies Program, CU-Boulder Associate Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder 		(NEON), Boulder, CO (Visiting Scientist from CU-Boulder)		
School of the Environment and Sustainability, CU-Boulder Associate Director for Graduate Education, Environmental Studies Program, CU-Boulder Associate Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder	2012-2015	Director, Environmental Studies Program, CU-Boulder		
2004-2010 Associate Director for Graduate Education, Environmental Studies Program, 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 Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder	2012-2015	Chair of the Visioning Committee and Program Implementation Director, proposed		
Boulder Associate Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder		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 Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder	2004-2010	Associate Director for Graduate Education, Environmental Studies Program, CU-		
and Environmental Studies Program, CU-Boulder 2005-2006 CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder		Boulder		
2005-2006 <i>CU Faculty Fellow</i> , on sabbatical leave in Tanzania, East Africa 1998-2003 <i>Assistant Professor</i> , Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder	2003-2009	Associate Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology		
1998-2003 Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology and Environmental Studies Program, CU-Boulder		and Environmental Studies Program, CU-Boulder		
and Environmental Studies Program, CU-Boulder	2005-2006	CU Faculty Fellow, on sabbatical leave in Tanzania, East Africa		
G ,	1998-2003	Assistant Professor, Joint appointment with Dept. of Ecology & Evolutionary Biology		
1996-1998 Assistant Professor Environmental Design University of California-Davis		and Environmental Studies Program, CU-Boulder		
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SUMMARY OF LEADERSHIP EXPERIENCE AND RESEARCH EXPERTISE

My leadership experience includes serving as Director of the Arizona Institute for Resilience (AIR), Executive Director of the Earth Leadership Program; Chief Scientist of the National Ecological Observatory Network (NEON); directing a large, interdisciplinary environmental studies program; implementing new research-focused and professional graduate programs, and serving as founding director of a community engagement center. My interdisciplinary scholarship and teaching focus on human-environment interactions in urban and wild landscapes, emphasizing the impacts of habitat loss, fragmentation, and restoration on the persistence of native species, communities, and ecosystems, and of particular relevance to the interface among environmental science, policy, and planning regarding habitat protection, ecosystem services, and environmental resilience and sustainability.

KEY LEADERSHIP APPOINTMENTS

Director, Arizona Institute for Resilience, University of Arizona (2022-present)

- Lead the development of a strategic vision for a newly-established, inter- and transdisciplinary research institute focused on promoting environmental and societal resilience
- Invest in high priority research initiatives related to climate, energy, water, ecosystems, and Indigenous resilience to foster collaborative research and respond to new funding opportunities

Executive Director, Earth Leadership Program, Future Earth, CU-Boulder (2020-2022)

• Recruited and selected diverse North American cohort of fellows for 2022, engaged with funders, launched transdisciplinary leadership training program, pursued global partnerships

President (2021-24) and VP for Public Affairs (2011-2014), Ecological Society of America

- Elected leader of 9,000-member professional society; lead governing board, oversee annual meeting and publications activities, implement DEIJ programs for students and faculty
- Engage with professional staff on media outreach and engagement with local, regional, and federal decision-makers on actions related to ecological science and sustainability

Faculty Director, Center for Sustainable Landscapes and Communities (2018-2020)

- 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)

- Promoted skill development and transformative research related to data produced by the network of sites funded by NSF's Division of Biological Infrastructure and Large Facilities Office
- Led a multi-disciplinary scientific and technical staff to provide highly reliable data, infrastructure, and scientific resources to engage a diversity of stakeholders

Trustee, The Nature Conservancy (TNC), Colorado (2016-2022)

- Participated in quarterly board meetings to advise TNC Colorado on conservation strategies and to approve implementation of land and water conservation initiatives in Colorado
- Served as scientific advisor to staff via the Conservation and Strategic Planning Committees

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

- Appointed by the CU-Boulder Provost to direct the visioning process and implementation of the proposed 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

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

- Elected by faculty to direct large, complex, and diverse interdisciplinary undergraduate and graduate programs; led process to develop new professional master's program
- Assisted with fundraising for the Sustainability, Energy, and Environment Complex (SEEC)

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

Associate Director for Graduate Education, Environmental Studies Program, CU-Boulder (2004-2010)

- Chaired subcommittee for new graduate program design, crafted curriculum for new graduate program, co-advised students in the natural science core area of the curriculum
- Chaired newly launched graduate committee and supervised all aspects of graduate student recruitment, selection, funding allocations, teaching assignments, progress monitoring, and graduation requirements

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

• Developed and directed an interdisciplinary 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 in a competitive process
- 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

RESEARCH FUNDING, 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, 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

- National Science Foundation, ICER International Global Change Research and Coordination Program "Collaborative Research: Core Support for Future Earth Capacity and Engagement in International Global Change Research," 2021-2022, \$944,037, co-PI (with Josh Tewskbury, Future Earth)
- National Science Foundation, ICER International Global Change Research and Coordination Program, "Transdisciplinary Training Collaboratory: Building Common Ground" 2021-2025, \$1,254,756, co-PI (with Pam Matson, Stanford University)
- David and Lucile Packard Foundation, "Earth Leadership Program: Accelerating Engaged Science in an Uncertain World," 2020-2022, \$100,000, PI (with co-PI Josh Tewksbury, Future Earth)
- City of Boulder, Boulder County, and Community Foundation Boulder County, "Boulder Ecosystems Trends Report: 2020," 2020, \$14,000, PI, Awarded to CU-Boulder Center for Sustainable Landscapes and Communities
- National Science Foundation, Long-term research in environmental biology (LTREB), "Evaluating the role of metacommunity dynamics in the assembly of vernal pool plant communities," 2008-2018, \$899,964, PI (Awards 1257385 and 0744520)
- 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)
- 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)

- 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, 1998-2002, "Vernal pool and endangered species habitat mitigation," Phases I-III, \$134,721 (sole PI)

Internally funded grants for research, instruction and community engagement

- RII Workshop Grant, "Cultural transformation in the geoscience community: building capacity for Indigenous students, scholars, and communities toward environmental and societal resilience," \$24,957, U of Arizona, 2022-2024, PI
- CU Office for Outreach and Engagement, "CU Restoration Ecology Experiential Learning Program," 2021-2022, \$23,900, co-PI with Tim Seastedt
- 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
- 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

Awards and Honors

Academic Leadership Institute Fellow, 2023-2024, University of Arizona

President of the Ecological Society of America, 2021-2024

Center for Sustainable Landscapes and Communities (CSLC), Civic Achievement Award, CU Boulder Campus Sustainability Awards (with Amanda Carrico and Erin Fried), 2021

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 J. Ramp and T. Ranker

RECENT SERVICE AND ENGAGEMENT ACTIVITIES

Member, President's Commission on the Future of Agriculture and Food Production in a Drying Climate, U of Arizona, January – July 2023

Chair, Search Committee, Paul and Alice Baker Postdoctoral Research Associate in Climate Change and Human Resiliency, U of Arizona, 2023

Co-organizer, Workshop on Sustainable Operational Models for Campus-wide Centers and Institutes, U of Arizona, March 21, 2023

Panel moderator, Creating a resilient future with the Arizona Institute for Resilience; Strategic Plan in Action, U of Arizona, March 29, 2023

Chair, Resilience Practice Graduate Interdisciplinary Program, Arizona Institute for Resilience, 2022-23

Program Director, Technology Research Initiative Fund (TRIF) Water, Environmental and Energy Solutions (WEES), U of Arizona, 2022-present; Administer \$4M in research funds annually

Panelist, National Science Foundation, Office of International Science and Engineering, AccelNet program, February 2023

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.
- **Peer-reviewed journal publications** (full list of 62 publications available upon request: *denotes student author that is my advisee; #denotes student author of a collaborator):
- Aoyama, L., L. Shoemaker, B. Gilbert., **S.K. Collinge**, A.M. Faist, N. Shackelford, V. Temperton, G. Barabás, L. Larios, E. Ladouceur, O. Godoy, C. Bowler, and L. Hallett. 2022. Application of modern coexistence theory to rare plant restoration provides early indication of restoration trajectories. *Ecological Applications* 32(7):e2649.
- Colman, R.E., J. *Brinkerhoff, J.D. Busch, C. Ray, A. Doyle, J.W. Sahl, P. Keim, S.K. Collinge, and D.M. Wagner. 2021. No evidence for enzootic plague within black-tailed prairie dog (*Cynomys ludovicianus*) populations. *Integrative Zoology* 16: 834-851.
- 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.
- *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.
- *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.
- *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].
- *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.
- *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
- 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.
- **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.
- #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.
- *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.
- #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.
- #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.
- **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.

- *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.
- 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.
- 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.
- *Brinkerhoff, R.J., **S.K. Collinge**, C. Ray, and KL. 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.
- 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.
- **Collinge, S.K.** and C. Ray. 2009. Transient patterns in the assembly of vernal pool plant communities. *Ecology* 90(12):3313-3323.
- 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.
- *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.
- 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.
- *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].
- 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.
- 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.
- *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.
- *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.
- 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.
- Ray, C. and **S.K. Collinge**. 2007. Introducing the trophic vortex: response to Stapp. *EcoHealth* 4:122-124.
- *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.
- *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.
- *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.
- 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.
- 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.

- #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.
- *Johnson, W.C. and S.K. Collinge. 2004. Landscape effects on black-tailed prairie dog colonies. *Biological Conservation* 115:487-497.
- 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.

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.
- 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.

Webinars organized

- "This Changes Everything Sustainability Science in a Post-COVID-19 World," May 12, 2020, served as host and moderator
- "Ecosystem Summit: Climate and Soil Health, Watershed Health and Air Quality, Biodiversity and Urban Land Cover," three webinars in November 2020, in association with release of "2020 Ecosystem Trends Report" through the Center for Sustainable Landscapes and Communities, CU-Boulder
- "Long-term ecological data from Boulder's Mountain Ecosystems, two webinars in November 2021 in preparation for "2022 Ecosystem Trends Report" through the Center for Sustainable Landscapes and Communities, CU-Boulder, served as host and moderator

Published datasets

- Collinge, S.K. and A.M. Faist. 2020. Long Term Research in Environmental Biology (LTREB): California vernal pool plant community ecology and restoration, 2000-2017 ver 2. Environmental Data Initiative. https://doi.org/10.6073/pasta/1daedb3a3b601d0fd9ccb4120cfb504e.
- #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.

Reports

Collinge, S.K., K. Tuff, R. #Benzeev, #S. Jaffe and K. Bailey. 2020 Ecosystems Trends Report, Produced through the Center for Sustainable Landscapes and Communities, Digitally available at https://cslc.colorado.edu/2020-trends.

Editorials

- Kottler, E.J., K.M. Shanebeck, and **S.K. Collinge**. 2023. Allyship requires action. Invited guest editorial for *Frontiers in Ecology and the Environment*, doi: 10.1002/fee.2631.
- Weathers, K.C., D. Ojima, **S.K. Collinge**, and O. Sala. 2021. Leveraging the anthropause. Invited guest editorial for *Frontiers in Ecology and the Environment*, doi:10.1002/fee.2382.
- **Collinge, S.K.** 2018. NEON is your observatory. Invited guest editorial for *Frontiers in Ecology and the Environment*, doi:10.1002/fee.1939.

Media products

"In search of honey bloom," Video produced by <u>impactmedialab.com</u> 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
- Collinge, S.K. Reversing habitat loss in the West. Column for Boulder Daily Camera, March 30, 2003.
- **Collinge, S.K.** Endangered species: let's not fool ourselves. Column for *Boulder Daily Camera*, May 27, 2001.

Invited presentations

- **Invited keynote speaker**, Land and Water Summit: Communities, Collaboration, and Climate Change, Albuquerque, NM, March 2, 2023
- "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
- "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

Invited participation in scientific workshops

- "Applying Coexistence Theory to Restoration Ecology and Adaptive Management," Working Group at the Synthesis Centre of the German Centre for Integrative Biodiversity Research (iDiv), 2019
- "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
- "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]

TEACHING ACCOMPLISHMENTS

Undergraduate courses

- **Leadership for Environmental Sustainability:** ENVS 4100 (3-unit project-based course), 2019; revised as ENVS 4800 (3-unit course), 2022
- **Introduction to Environmental Studies:** ENVS 1000 (4-unit lecture/recitation course), 2017, 2020, 2021
- 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), 1998-2013

Graduate courses

The Scientific Basis of Environmental Change: ENVM 6100 (3-units), Augmester 2019

Applications of Environmental Change: ENVM 6101 (1-unit), Augmester 2019

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), 2014-2022

Environmental Science: ENVS 5002 (3-units), 2007-2012

SERVICE ACTIVITIES

Government agencies

Invited panelist, National Science Foundation Division of Environmental Biology (DEB), 2000-2022; multiple panels, including Population and Community Ecology, Biocomplexity, LTER

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

Member, Science Advisory Board, East Contra Costa County and City of Antioch HCP/NCCP, 2018; Butte Regional Habitat Conservation Plan, 2007-2011; Solano County California Habitat Conservation Plan, 2002

Department, College, and Campus (CU Boulder, 1998-2022)

Chair, ENVS/MENV Faculty Rank Task Force, 2022

Member, MENV Inclusive Leadership faculty search committee, 2021-2022

Member, Strategic Planning Committee, Masters of the Environment (MENV) program, 2021-2022

Member, Faculty search committee for MS in Outdoor Recreation Economy (MORE), Community Economic Development position, 2020

Member, Task force on MENV/ENVS Administration, 2020

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

Mentor, Junior Faculty Mentoring Program, Office of Faculty Affairs, 2020-2021

Member, Conflicts of Interest and Commitment Committee, 2019-2022

Member, Academic Futures Interdisciplinarity Task Force, 2019

Member, Niwot Ridge LTER Advisory Committee, 2016-17 and 2022

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: Kent State University (2022), Ben Gurion University, DePaul University (2021), University of Wisconsin-Madison, Cary Institute for Ecosystem Studies, University of the West Indies, University of Michigan (2020), 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 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)

Last updated: October 2023