**SARAH JACK HINNERS**

Center for Ecological Planning + Design Dept. of City + Metropolitan Planning

University of Utah

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EDUCATION

McGill University, Montreal, Canada. Geography and Environmental Studies (minor), **BA** 1996

Great Distinction

University of Colorado, Boulder. Ecology & Evolutionary Biology, **PhD** 2008

Dissertation title: “Pollinators in an urbanizing landscape: Effects of suburban sprawl on a grassland bee assemblage” Advisors: Dr. Carol A. Wessman, Dr. Carol A. Kearns

APPOINTMENTS

**Associate Professor Clinical**, City & Metropolitan Planning 2022-

**Director,** Center for Ecological Planning & Design, U. of Utah 2017-

**Associate Director,** Global Change & Sustainability Center, U. of Utah 2017-

**Acting Director,** Ecological Planning Center, U. of Utah 2013-2017

**Assistant Professor Research**, City & Metropolitan Planning, U. of Utah 2012-2022

**Senior Research Analyst**, Metropolitan Research Center, U. of Utah 2011-2012

**Instructor,** Ecology & Evolutionary Biology, CU-Boulder 2008-2009

**Research Associate**, Ecology & Evolutionary Biology, CU-Boulder 2008

**Graduate Assistant**, University of Colorado Museum Entomology Collection 2005, 2008

**Lead Graduate Teacher**, Ecology & Evolutionary Biology, CU-Boulder 2006

**Graduate Fellow in Science Education**, NSF-GK-12 program 2003-2005

**Teaching Assistant**, Ecology & Evolutionary Biology, CU-Boulder 2000-2007

**Facilitator,** Biological Sciences Initiative, Seminar for Science Educators 2002

**Research Internship** in Ecological Agriculture, The Land Institute, Salina, Kansas 1997

PRIVATE PRACTICE

**Sarah Jack Hinners Ecological Consulting LLC** 2019-

Regenerative design; ecological restoration; stormwater green infrastructure; landscape performance

PUBLICATIONS

In progress

**Hinners, S.J**. Biophilic Cities are for Nature and People. In *Wild Wasatch.* Timber Press. (expected publication 2023).

Published

Hahs, A.K. et al. Urbanisation generates multiple trait syndromes for terrestrial taxa worldwide. (accepted at *Nature Communications*).

Hinners, S.J., J. Rose, D. Choi, K. Park. (2022). Geographically evaluating urban-wildland juxtapositions across 36 United States urban areas. *Geography and Sustainability* 3(2): 139-151. <https://doi.org/10.1016/j.geosus.2022.05.004>

Cobley, L.A.E., D.E. Pataki, F.R. Adler, and S.J. Hinners. (2021.) Understanding the link between atmospheric pollutant concentrations and median household income using traffic density and *Convolvulus arvensis* chemistry in Salt Lake Valley, UT. *Journal of Geophysical Research –Atmospheres*. DOI: 10.1029/2021JD034942

Follstad Shah, J.J., R. Bares, B.B. Bowen, G.J. Bowen, D.R. Bowling, D.P. Eiriksson, B. Fasoli, R.P. Fiorella, A.G. Hallar**, S.J. Hinners**, J.D. Horel, A.A. Jacques, L.R. Jamison, J.C. Lin, D.L. Mendoza, L.E. Mitchell, D.E. Pataki, S.M.Skiles, R.M. Smith, M.A. Wolf, and P.D. Brooks. (2021). The Wasatch Environmental Observatory: A mountain to urban research network in the semi-arid Western US. *Hydrological Processes* 2021 (35): e14352. **DOI:**[**10.22541/au.160193423.36406539/v1**](https://doi.org/10.22541/au.160193423.36406539/v1)

Su, J-Y., R. Goel, S. Burian, **S.J.Hinners**, A. Kochanski, C. Strong, and M. Barber. (2021). Water quality trading framework with uncertainty for river systems due to climate and population characteristics. *Water* 13(13):1738. <https://doi.org/10.3390/w13131738>

Pataki, D.E., C.G. Santana, **S.J. Hinners**, A.J. Felson, and J. Engebretson. (2021). Ethical considerations of urban ecological design and planning experiments. *Plants, People, Planet* 3(6):737-746.<https://doi.org/10.1002/ppp3.10204>

Stoker, P., S.J. Hinners, D. Jackson-Smith, M. Buchert, Z. Levine. (2019). Neighborhood effects on parcel level water use. *Sustainable Water Resources Management* 5(3): 1303-1313*.* <https://doi.org/10.1007/s40899->019-00306-5

Hinners, S.J., A.C. Nelson and M.P. Buchert. (2018). Streetcars and Economic Development: Do Streetcars Stimulate Economic Growth? *Transportation Research Record* 1-12. <https://doi.org/10.1177%2F0361198118790096>

Hinners, S.J. (2017). The cosmopolitan ecology of suburbia. In *Infinite Suburbia*, A. Berger and J. Kotkin, eds. Hudson, NY: Princeton Architectural Press.

Hale, R.L., A. Armstrong, M.A. Baker, S. Bedingfield, D. Betts, C. Buahin, M. Buchert, T.Crowl, R.R. Dupont, J. Ehleringer, J. Endter-Wada, C. Flint, J. Grant, S.J. Hinners, J.S.Horsburgh, D. Jackson-Smith, A.S. Jones, C. Licon, S.E. Null, A. Odame, D.E. Pataki, D. Rosenberg, M. Runburg, P. Stoker, C. Strong. (2015). iSAW: Integrating Structure, Actors, and Water to study socio-hydro-ecological systems. *Earth’s Future* 3(3): 110-132.

Hinners, S.J., C.A. Kearns and C.A. Wessman. (2012). Roles of scale, matrix and native habitat in supporting a diverse suburban pollinator assemblage. *Ecological Applications* 22(7): 1923- 1935.

**Hinners, S.J.** and M. Hjelmroos-Koski. (2009). Receptiveness of foraging wild bees to exotic landscape elements. *American Midland Naturalist* 162(2): 253-265.

Tillberg, C.V., M.D. Breed and **S.J. Hinners**. 2007. *Field and Laboratory Exercises in Animal Behavior*. Elsevier: Amsterdam.

POPULAR MEDIA

Contributing writer: The Nature of Cities, [www.thenatureofcities.com](http://www.thenatureofcities.com) see links to essays below:

<https://www.thenatureofcities.com/2019/09/16/smart-vs-green-technology-paradigms-battle-it-out-for-the-future-city/>

<https://www.thenatureofcities.com/2018/06/23/low-hanging-fruit-complex-systems-maybe-better-aim-higher-fruit/>

<https://www.thenatureofcities.com/2017/08/16/imagine-ecological-certification-urban-design-certifications-key-elements/>

<https://www.thenatureofcities.com/2017/01/24/terms-creating-better-cities-ecologists-landscape-architects-lot-common-sometimes-talk-past-perspective-one-critical-idea-profession/>

TECHNICAL PAPERS AND REPORTS

Hinners, S.J. and M.A. Larice. (2016). Assessing the Impacts of Streetcars on Economics, Equity, and Quality of Life. Submitted to the U.S. Department of Housing and Urban Development. <http://mrc.cap.utah.edu/wp-content/uploads/sites/8/2015/12/Assessing-the-Impacts-of-Streetcars-on-Economics-Equity-and-Quality-of-Life-HUD-Sustainable-Communities-Grant-Deliverable-August-2016.pdf> (awaiting permanent url)

Hinners, S.J., J.N. Rose, D. Choi, K. Park, E.C. Guffin and K.C. Mauldin. (2019). Mapping and measuring the urban wildland juxtaposition. (awaiting permanent url).

GRANTS

Global Change & Sustainability Center WEO Seed Grant, U. of Utah, $12,000 2022

“Landscape Lab Effects on Pollutant Loads to Red Butte Creek” (J. Follstad Shah, PI)

Utah Division of Water Quality NonPoint Source Program, $55,000 2019 “Capture and treatment of street runoff at the Williams & Myriad Buildings, U. of Utah Research Park, using curb cuts and bioretention”

Global Change & Sustainability Center seed grant, U. of Utah, $9,072 2019

“Spatial and temporal variability in the rhizome microbiome in stormwater green infrastructure for arid environments” (R. Smith, PI with S. Hinners, R. Goel coPIs)

Utah Division of Water Quality LID Demonstration Project Program, $341,000 2018 “Stormwater Management Testing and Demonstration at the University of Utah: the Landscape Lab” (S. Hinners, PI)

Utah Division of Water Quality NonPoint Source Program grant, $25,000 2017

“The Landscape Lab at the Williams Building, Phase II” (S. Hinners, PI)

College of Architecture + Planning, U. of Utah Scholarship Incentive Seed Grant, $10,000 2017

"Mapping and measuring the urban-wildland interface: Laying the groundwork for quantitative studies of human-nature relationships in urban areas” with K. Terzano, J. Rose

NITC Education Grant, $94,880 2016 “Collaborative Scenario Planning: A Tool for Facilitating Sustainable Transportation

Decisions in Gateway Regions?” (D. Rumore, PI, with D. Chandrasekhar, S. Hinners, co-PIs)

College of Architecture + Planning, U. of Utah Scholarship Incentive Seed Grant, $10,000 2015 “Addressing Wicked Problems from the Inside Out: Stakeholder Assessment for Collaborative Resilience Planning in the Western Zion Corridor” with D.Rumore, D. Chandrasekhar

EPA Water Scarcity and Drought, $1,200,000 2015 “Prediction of Nonlinear Climate Variations Impacts on Eutrophication and Ecosystem Processes and Evaluation of Adaptation Measures in Urban and Urbanizing Watersheds.

(M. Barber, PI, with S. Burian, R. Goel, B. Clark and S. Hinners, co-PIs)

HUD Sustainable Communities Transformation Initiative, $138,000. 2013

“Assessing the impacts of streetcars on economics, equity, and quality of urban life” (S. Hinners, PI, with M. Larice and A.C. Nelson, co-PIs)

EPA Wetland Development Grant, $103,000 (sub to Mid-America Regional Council) 2012

“Embedding ecological value in sustainable land-use planning”

NASA-MSU Professional Enhancement Award, US-IALE Annual Symposium $500 2008

PhD Research Fellowship, Dept. of Ecology & Evolutionary Biology, CU-Boulder 2006

Boulder County Parks and Open Space Small Grant $6000 2004

Ecology and Evolutionary Biology Departmental Research Grant $2000 2003

UGGS (United Government of Graduate Students) Travel Grant – Ecological 2003

Society of America 88th Annual Meeting $800

Boulder Open Space and Mountain Parks Small Grant $3000 2002

Edna Bailey Sussman Fund Award $1000 2001

PROFESSIONAL DEVELOPMENT

U. of Utah Leadership Development Program 2017-18

AWARDS

**Outstanding Undergraduate Research Mentor Award,** U of Utah 2023

**APA Utah Outstanding Achievement Award for Regional Planning** (as part of 2014 the Wasatch Choice for 2040 Partnership.)

**Sigma Xi Graduate Research Award**  2008

**Graduate Teacher Certification**, CU-Boulder 2008

**Best Should Teach Award**, Graduate Teacher Program, CU-Boulder 2006

**Teaching Excellence Award**, Ecology and Evolutionary Biology, CU-Boulder 2004

**Teaching Assistant Award**: United Gov’t of Graduate Students, CU-Boulder 2004

PRESENTATIONS and INVITED TALKS

“Building dynamic transdisciplinary knowledge at the landscape lab: test of an integrated process model for planning, Design, and ecology”, at the Associated Collegiate Schools of Planning Annual Conference, November 2022.

“The Landscape Lab: Exploring social, ecological, and technological adaptation to water scarcity and climate change through stormwater management at the University of Utah”, at the American Association of Geographers Annual Meeting, February 2022.

“Resilience in the Face of Change” Keynote, Salt Lake County Watershed Symposium, November 2021.

“Flattening the Curve: Landscape Lab impacts on Red Butte Creek” with L. Jamison and I. Fuller, Salt Lake County Watershed Symposium, November 2021.

“Carbon and the built environment: becoming net negative?” AIA Utah webinar, December 2020.

“Campus as a Living Lab: embedded research for sustainability innovation in the built environment” Global Change and Sustainability Center (GCSC) seminar series, U. of Utah, November 2020.

“The potential for carbon capture in the built environment” Architectural Nexus brownbag lunch series, June 2020.

“For the love of carbon: imagining cities that function like forests” EPiC Think, Center for Ecological Planning & Design, U. of Utah, February 2020.

“People, Place, Design: Social and ecological perspectives on stormwater green infrastructure for urban landscapes in the semi-arid west” Environmental Engineering seminar series, University of Nevada Reno, February 2020.

“People, Place, Design: Can we achieve thriving, life-sustaining urban landscapes in the hot, dry west? Natural History Museum of Utah Science Salon, January 2020.

“Ecology and Buildings” ASHRAE Student Chapter presentation, U. of Utah, November 2019.

“Me, Us, Them – Convening planners, ecologists and designers to build long-term collaborations”, with Diane Pataki and Katie Coyne. SEED Session at The Nature of Cities Summit, Paris, June 2019.

“The Landscape Lab – Research Program Development” with Laura Bandara, to Salt Lake City Sustainable Infrastructure Committee, January 2019.

“Foundations of a Green Infrastructure Research Network Along Red Butte Creek and Beyond” (poster) with Diane Pataki and Rose Smith, at the Red Butte Creek Symposium, Salt Lake City, December 2018.

“Situation Assessment of Water Quality Issues in the Jordan River” with Brett Clark and Debolina Banerjee, Salt Lake County Watershed Symposium, November 2018.

“Portals: Investigations in Pollinators, Process, Planning, People & Place” in the Investigating Careers in the Environment seminar series, University of Colorado Boulder, October 2018.

“Rediscovery and Revitalization of Red Butte Creek Through Integrated Processes of Science, Planning, and Design” at the International Symposium on Society and Resource Management, Snowbird, Utah, June 2018.

“Streetcars and Economic Development: Do Streetcars Stimulate Economic Growth?” with Arthur C. Nelson at Transportation Research Board Annual Meeting, Washington, DC, January 2018.

“A Process Model for Ecological Planning and Design” at the College of Architecture + Planning Research Symposium, University of Utah, October 2017.

“Pollinators as a Portal to Ecological Planning” at SACNAS (Society for the Advancement of Chicanos/Hispanics and Native Americans in Science) annual conference, Salt Lake City, Oct. 2017.

“Integrating ‘Ways of Knowing’ and ‘Ways of Doing’ to Develop an Ecological Planning Approach to Urban Wildlife” at The International Urban Wildlife Conference, San Diego, June 4-7 2017.

“Landscape Lab: Merging Science and Design for a Landscape of Learning”, with Laura Bandara and Brenda Bowen, at the Salt Lake County Watershed Symposium, November 2016

“Public Support for Open Space Planning in the US” at Associated Collegiate Schools of Planning annual conference, Portland, OR, November 2016

“City Comforts: the Livable Urban Village and the Salt Lake Valley” Panel Presentation, US Green Building Council Utah Sustainability Summit, October 2016

“Bioretention in Arid Climates”, with Christine Pomeroy, at American Public Works Association, Utah chapter symposium, October 2016

“Models in Scenario Planning” at the Dialogue on Collaboration forum, UofU Environmental Dispute Resolution Program, June 2016

“The Nature of 2050” workshop at the Wasatch Choice for 2050 Consortium and Active Transportation and Public Health Summit, June 2016.

“Landscape Lab: Merging Science and Design for a Landscape of Learning” at the Spring Runoff Conference, Utah State University, April 2016

“Creating Faculty-Driven Catalysts for Sustainable Collaborations”, Feb 26, 2016 a2RU webinar

“Uncertainty in Future Water Quality and Quantity in the Jordan River” at Salt Lake County Watershed Symposium, November 2015.

“Scenario Planning with ET+” Rocky Mountain Land Use Institute Annual Symposium, March 2015

“Investing/Divesting for a Sustainable Future” UofU Senate/Hinckley Panel on Divestment, April 2015

“Weaving the Green and Blue” at Mayor’s Symposium: The Green-Blue City, Salt Lake City, April 2015

“Water Flows Through the City” at Salt Lake County Watershed Symposium, November 2014.

“Ecological Planning for Human Habitat on a Crowded Planet” at the Research Administration NAKAMA series (invited), University of Utah, July 2014.

“Science and Place: Finding oneself in an interdisciplinary landscape” at Graduate and Advanced Ladies in Science (GALS) seminar (invited), University of Utah, March 2014.

“Bringing the Mountains to the Valley: the role of nature in our city” with Diane Pataki, at the Mayor’s Symposium (invited), Salt Lake City, February 2014.

“Ecological Planning for Human Habitat on a Crowded Planet” in the Global Change and Sustainability Center seminar series (invited), University of Utah, January 2014.

“Envision Tomorrow Plus” at Wasatch Choice for 2040 trainings in Provo, Ogden, Farmington and Salt Lake City, Utah, November and December 2013.

“Envision Tomorrow Plus: Scenario Planning for the 21st Century” at the American Society of Public Administrators luncheon (invited), December 2012

“Envision Tomorrow Plus” at Utah League of Cities and Towns annual conference (invited), Sept. 2012

“Incorporating Ecosystem Services into an Urban Scenario Planning Package”, at Ecological Society of America 97th Annual Meeting, Portland, OR, August 2012

“Envision Tomorrow Plus” at the Wasatch Choice for 2040 regional consortium meeting (invited), 2012

“The ‘Burbs and the Bees: Wild Pollinators and Suburban Sprawl”, Biology Seminar Series, Utah State University (invited), 2010

“Pollinators in Denver’s Suburban Landscape” at *Café Botanique*, Denver Botanical Garden (invited) 2008

“Scale, habitat and fragmentation effects on a pollinator assemblage in an urbanizing landscape”, International Association of Landscape Ecology Annual Symposium, Madison, Wisconsin, 2008

“The ‘burbs and the bees: Pollinators and suburban sprawl:, University of Colorado at Boulder, Ecology & Evolutionary Biology Colloquium series (PhD Exit talk), 2008

Guild of Rocky Mountain Ecologists and Evolutionary Biologists Annual Meeting 2005

Ecological Society of America 90th Annual Meeting, Montreal, Canada 2005

CU-Boulder, Ecology & Evolutionary Biology Brown Bag Lunch Series 2003

Front Range Student Ecology Symposium, Colorado State University 2002

Guest Lecturer: *Animal Behavior, Endangered Species, Evolutionary Biology, Landscape Ecology, Urban and Regional Modeling*, *Game Changers* , *Green Communities, Graduate Technical Writing Seminar, Architectural Research, Environmental Studies Capstone, Urban Design Studio, Business First Ascent Scholars Program, Global Changes & Society, Energy Systems Analysis, Site Planning, Design Contexts, Intro to the Environment & Sustainability*.

TEACHING

UNIVERSITY OF UTAH

SUST6000 Global Changes & Society /CMP6280 Graduate Workshop – spring 2023

CMP6610 *Urban Ecology* – fall 2022

CMP6280 *Graduate Workshop*-Agri-conservation development in Layton UT – fall 2020

CMP3200 *Ecology of Human Settlements* (prev. *Principles of Ecology for Planners*)- annually since 2014

CMP4460/6660 *Green Infrastructure -* fall semesters 2015, 2017, 2018, 2019, 2021, spring 2021

SUST6800 *Global Change and Sustainability Seminar -* 2015-2017

CMP 6371 *Complexity and Systems Thinking* - fall 2016, spring 2020

CMP7401 *Metropolitan Research Design* – spring 2019

UNIVERSITY OF COLORADO BOULDER

Instructor: *General Biology II* – 2008, 2009

Teaching Assistant: *General Biology I*; *General Biology II ; Environmental Biology; Animal Behavior; Evolutionary Biology –* 2000-2007

ACADEMIC, PROFESSIONAL, and COMMUNITY SERVICE

Technical Committee member, Utah Guiding our Growth Initiative 2023

Red Butte Garden Advisory Board member 2022-

Folsom Corridor City Creek Daylighting Project Technical Advisory Committee 2021

(Salt Lake City Redevelopment Agency)

Seed-to-Soil Committee, University of Utah Sustainability 2021-

CA+P ad hoc committee on operations under Yellow pandemic restrictions 2020

Jordan River TMDL Technical Advisory Committee (Utah Div. of Water Quality) 2020-

Jordan River Blueprint Update consultant team (pro bono) 2020-21

Undergraduate Program Coordinator, City & Metropolitan Planning, U. of Utah 2019-

Juror, *On the River’s Edge* Ideas Competition, Salt Lake Co. & Jordan River Found. 2019

University Interdisciplinary Teaching Program Committee, U. of Utah 2019-

Research Park Master Plan Advisory Steering Committee, U. of Utah 2019-2021

Search Committee Chair (Asst. Prof. Lect.), City & Metropolitan Planning, U. of Utah 2019

Search Committee (Asst. Prof.), City & Metropolitan Planning, U. of Utah 2019

Content Expertise, *Nature All Around Us* exhibit, Utah Museum of Natural History 2018-2019

Red Butte Creek Committee, U of Utah 2018-

Organizer, Red Butte Creek Symposium 2018

Organizer, EPiC Collaborative 2018-

Executive committee/jury, *Stories of the Nature of Cities* global flash fiction contest 2018

Resulting book: *A Flash of Silver Green*. 2019. Publication Studio Guelph.

Campus Water Committee, U. of Utah 2017-

Member, Point of the Mountain Small Advisory Group on Recreation, 2017-2018 Environment and Entertainment, State of Utah

PhD Program Committee, City & Metropolitan Planning, U. of Utah 2016-2018

Chair, Red Butte Creek/Williams Building Re-landscaping Design Team 2015-2017

University Research Committee, Office of the VPR, U. of Utah 2015-2018

Academic Senate, CA+P career-line representative, U. of Utah 2015-2018

Landscape Master Plan Steering Committee, U. of Utah 2015-2017

Organizer, Mayor’s Symposium: The Green-Blue City 2015

Red Butte Creek Strategic Vision Steering Committee, U. of Utah 2015

Member, Governor’s Task Force on Agriculture, Recreation and Natural Lands, 2014-2015 Your Utah Your Future initiative

Chair, Steering Committee and Founder, NatureWorks Alliance 2014-2018

Executive Committee, Global Change and Sustainability Center, U. of Utah 2013-2015, 2017-

Ecological Planning Curriculum Committee, City & Metro. Planning, U. of Utah 2013-

Curriculum Committee (undergraduate), City & Metropolitan Planning, U. of Utah 2012-

Ecological Planning Center, U. of Utah 2012-

Seminar Committee, Global Change and Sustainability Center, U. of Utah 2012-2013

2015-2016

Ecology Search Committee, Ecology & Evolutionary Biology, CU-Boulder 2004-2005

Chair, Spring Symposium Committee, Ecol. & Evol. Biology, CU-Boulder 2004

Colloquium Committee, Ecology and Evolutionary Biology, CU-Boulder 2001-2003

Society Memberships: American Planning Association, Association of Collegiate Schools of Planning, Ecological Society of America

Journals Refereed: *American Journal of Botany, Animal Behaviour, Annals of Botany, Ecological Applications, Ecological Restoration, Grana, Integrative Zoology, Journal of the American Planning Association, International Journal of Plant Sciences, Journal of Applied Ecology, Journal of Water Resources Planning and Management, Oecologia*, *Sustainability, Water, Land*.