Daniel S. Karp

Wildlife, Fish, and Conservation Biology
University of California, Davis
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CURRENT POSITION

2017-present Assistant Professor, University of California Davis
Department of Wildlife, Fish, & Conservation Biology

PREVIOUS POSITION

2015-2016 Killam Postdoctoral Fellow, The University of British Columbia
Institute for Resources, Environment, and Sustainability
Advisor: Kai Chan

2013-2015 NatureNet Science Fellow, The Nature Conservancy & UC Berkeley
Department of Environmental Science, Policy, and Management
Advisors: Claire Kremen, Mary Ruckelshaus, and Peter Kareiva

EDUCATION

2009-2013 PhD, Biology- Ecology and Evolution, Stanford University
Advisor: Gretchen Daily

2005-2009 BS, Biology- Ecology and Evolution Track, Stanford University
BS, Earth Systems- Biosphere Concentration, Stanford University
Advisors: Terry Root and Rodolfo Dirzo

CURRENT RESEARCH

Earth is experiencing more rapid changes now than at any time in the past ten thousand years. I am investigating the resulting trajectories of change in biodiversity and Earth's life-support systems. Looking forward, a key challenge for humanity is to increase food production, while at the same time securing other vital societal benefits from rural landscapes. Meeting this challenge requires improved understanding of how agricultural practices affect yields, biodiversity, and ecosystem services. My research thus focuses on developing methods for reconciling conservation activities with food production practices. My research program has four aspects. First, I develop and apply ecological theory to understanding and managing biodiversity in working landscapes. Second, I quantify the effects of alternative agricultural practices on biodiversity-mediated ecosystem services. Third, I investigate how identifying tradeoffs among biodiversity and ecosystem services can inform development of multifunctional landscapes. Finally, I work with international experts to synthesize science and guide policy.

TEACHING EXPERIENCE

2018-present Instructor, Tropical Ecology and Conservation (WFC 125).
2017-present Instructor, Conservation Biology (WFC 154).
2017 Co-instructor, BioControl: Ecology & Applications (ECL 290, graduate seminar).
2010 Teaching Assistant, Human Evolution and the Environment (Bio 1).

2010 Teaching Assistant, Core Experimental Biological Laboratory (Bio 44Y).
2010 Teaching Assistant, Conservation Biology (Bio 144).
2009 Teaching Assistant, Biology of Birds (Bio 139).

MENTORING EXPERIENCE

Postdocs

2021-present Sara Emery, Postdoctoral Researcher
2021-present Mahdieh Tourani, Postdoctoral Researcher
2020-present Jason Riggio, Postdoctoral Researcher
2019-present Naresh Devarajan, Postdoctoral Researcher
2019-2021 Daniel Paredes, Postdoctoral Researcher
2017-2020 Elissa Olimpi, Postdoctoral Researcher

Graduate Students

2021-present Cody Pham, PhD student (supervisor)
2019-present Katherine Lauck, PhD student (supervisor)
2017-present Alison Ke, PhD student (supervisor)

Graduate Student Committees

2021 Michael Ellis (external qualifying exam committee member)
2020-present Maria Ospina (qualifying exam and dissertation committee)
2020 Breanna Martinico (qualifying exam committee)
2020 Aviv Karasov-Olson (qualifying exam committee)
2017-present Emelie Graves (qualifying and dissertation exam committees)
2017-present Daniel Rocha (guidance, qualifying, and dissertation exam committees)
2015-2019 Alejandra Echeverri Ochoa (qualifying and dissertation exam committees)
2017-2019 Mickey Agha (qualifying and dissertation exam committees)
2019 Valerie Linden (external evaluator; dissertation exam committee)
2019 Meredith Lutz (qualifying exam committee)
2018 Allie Essert (qualifying exam committee)
2017 Michael Culshaw-Maurer (qualifying exam committee)

Undergraduates

2020-2021 Thomas Phillips, Kees Hood, Katia Goldberg
2019-2020 Alice Mathew, Kathleen Mendez, Sophie Borison, Thomas Phillips
2018-2019 Janie Paz, Kathleen Cotti, Kimberly Luke, Adam Humphrey, Sophie Borison
2017-2018 Hallie Daly, Delayni Miller, Victoria Glynn, Eavan Barbieux
2015-2016 William Ou
2013-2014 Mia Waters, Sara Winesemias
2012-2013 Sarah Kaewert
2011-2012 Florence Rutsch, Maesen Churchill, Seth Judson, Zoe Dubrow
2010-2011 Steve Scheele

SYNERGISTIC ACTIVITIES

2018-present **Review Editor**, Frontiers in Sustainable Food Systems.
2018-present **Science Advisory Team**, Wildlife Insights. Joined a collaborative effort to compile global camera trap data into one database to inform biodiversity monitoring. Working with colleagues to use these data to track changes in mammal/bird diversity in tropical protected areas. Also, recruited and now co-advise a postdoctoral scholar tasked with analyzing global camera trap data and producing occupancy analytics for the Wildlife Insights Platform.

2017-present **Co-Chair of Wildlife, Fish, and Conservation Biology Seminar Series**, UC Davis. With Pernille Boving, created a bi-weekly seminar series for the department of Wildlife, Fish, and Conservation Biology. Engaged students, postdocs, and faculty to build community and enhance WFCB visibility.

2017-present **Student Blog Curator,** UC Davis. Created and now curates an outward facing blog— The Student Conservation Corner (www.medium.com/student-conservation-corner)– where undergraduate students communicate conservation literature to the public.

2017-present **Outreach and workshops.** Helped organize or present at >10 workshops in Costa Rica and California for farmers, conservationists, and industry officials, reaching >900 stakeholders.

2017-2020 **Faculty Advisor of the Graduate Group of Ecology's Diversity Committee**, UC Davis. One of two faculty members of a committee charged with fostering diversity and promoting inclusivity in the UC Davis ecology community.

2010-present **Ecosystem Services Working Group Member**, Group on Earth Observations—Biodiversity Observation Network (GEO BON). Member of a working group designed to monitor and report changes in ecosystem services from local to global scales. Helped write manuscripts and designed research aimed at reporting ecosystem services at national scales.

2014-2017 **Pest Control Working Group Co-Lead,** National Socio-Environmental Synthesis Center (SESYNC). With Rebecca Chaplin-Kramer, organized international working group of ecologists, entomologists, economists, and sociologists to develop a general, spatial model for biological control. Responsible for all team leadership activities, including securing funding and coordinating bi-annual meetings, research activities, syntheses of pest control data, dissemination of findings, and outreach.

2010-present **Peer reviewer**. Contributed peer reviews to >65 grants and academic articles for journals including *Nature, Ecology Letters, PNAS*, and others.

2016-2018 **Science Advisory Board,** The Nature Conservancy's Working Lands Program**.** Member of an advisory board tasked with reviewing the evidence that a variety of agricultural practices increase biodiversity, ecosystem services, and/or crop yields in Mediterranean ecosystems.

2012-2013 **Rising Environmental Leaders Program,** Woods Institute for the Environment. Trained in environmental leadership including crafting policy-informative research, communication skills, and strategies for integrating research into policy with a cohort of 24 students. Attended meetings in California and in Washington, DC.

COMMITTEES

2021-present Admissions Committee (*Graduate Group in Ecology*), chair
2020-present Executive Committee (*Graduate Group in Ecology*), member
2017-present Admissions Committee (*Graduate Group in Ecology*), member
2017-present Seminar Committee (*department*), chair
2019-present Library Representative (*department*), chair
2018-present Endowment and Scholarship Committee (*department*), member
2017-present Wildlife Society Student Chapter (*department*), member
2020-2021 Admissions Committee (*Graduate Group in Ecology*), vice-chair
2018-2019 Swift Award Committee (*department*), member
2020 Visioning Committee for Agriculture Sustainability Institute (college), member
2017-2020 Diversity Committee (*Graduate Group in Ecology*), faculty mentor
2019 Faculty Search Committee- Professor of Wildlife Teaching (*department*), member
2018 Space Committee (*department*), member

2018 Curriculum Committee (*department*), member
2018 Faculty Search Committee- Wildlife Habitat Ecologist (*department*), member
2017 Strategic Vision Committee (*department*), member

GRANTS

2022-present USDA Bioenergy, Natural Resources, and Environment Program (PI; $649,633)
2021-present Center for Produce Safety (PI; $365,515)
2020-present USDA Food and Agriculture Cyberinformatics and Tools Initiation (co-PI; $282,648 to UC Davis; $877,990 for full award)
2020-present Conservation International Wildlife Insights Program (PI; $68,688)
2020-present National Geographic Committee for Research and Exploration (PI; $17,100)
2019-present UC Davis Academic Senate (PI: $24,984)
2019-present NSF and the Belmont Forum (Co-PI: $179,542)
2018-present NSF Coupled Human Natural Systems (Co-PI; $140,081 to UC Davis; $1,301,737 for the full award)
2018-present USDA Agricultural Research Service (PI; $222,053)
2019-2021 Center for Produce Safety (PI; $290,678)
2017-2021 USDA Bioenergy, Natural Resources, and Environment Program (PI; $500,000)
2017-2019 National Geographic Committee for Research and Exploration (PI; $20,850)
2015-2016 Killam Postdoctoral Research Fellowship ($100,000)
2013-2014 NatureNet Science Fellow, The Nature Conservancy ($200,000)
2013 Stanford BioSciences Travel Grant ($500)
2013 Stanford Biology Department Travel Grant ($600)
2012 NSF Doctoral Dissertation Improvement Grant ($15,000)
2012 Stanford Biology Department Travel Grant ($750)
2012 Organization for Tropical Studies Research Fellowship Program ($3,650)
2012 Bat Conservation International Student Scholarship ($3,600)
2012 SciFund Challenge ($1,100)
2011-2013 NSF Graduate Research Fellowship ($180,000)
2011 Vice Provost of Graduate Education SCORE grant ($2,000)
2008 Tambopata Experienced Researcher Fellowship ($5,000)
2008 Stanford University Major Grant ($5,200)
2007 Tambopata Research Fellowship ($5,000)
2007 Monica Miller Walsh Internship Grant ($2,150)
2007 Stanford University Quarterly Grant ($1,500)

HONORS AND FELLOWSHIPS

2018 Nominated by UC Davis for Packard Early Career Fellowship.
2015 Killam Postdoctoral Research Fellowship, Killam Trusts Office.
2014 Hann Endowed Lecture of Ornithology, University of Michigan.
2014 Faculty of 1000, Nomination of 2012 Ecology Letters paper.
2014 Early Career Scientist Symposium, University of Michigan.
2013 Davidson-Cristoph Award, Organization for Tropical Studies
2013 NatureNet Science Fellowship, Inaugural class
2012 Best Talk Award, North American Congress for Conservation Biology
2010 Graduate Research Fellowship, NSF
2010 Excellence in Teaching Award, Biology Department-Stanford University
2009 JE Sterling Award for Scholastic Achievement, Stanford University
2009 Firestone Medal for Undergraduate Research, Stanford University
2009 Miller-Marsden Prize for Environmental Research, Stanford University
2009 Dean's Award for Academic Achievement, School of Earth Sciences

2009 Honorable Mention Graduate Research Fellowship, NSF
2007 Award for Excellence in Biological Laboratory, Stanford University
2006 President's Award for Academic Excellence, Stanford University

PUBLICATIONS (* = shared first authorship)

Esquivel, K.E., L. Carlisle, A. Ke, E.M. Olimpi, P. Baur, J. Ory, H. Waterhouse, A. Iles, **D.S. Karp**, C. Kremen, and T. Bowles (In Press) The 'sweet spot' in the idle: why do mid-scale farms adopt diversification practices at higher rates? *Frontiers in Sustainable Food Systems.*

Alexandridis, N., E.A. Martin, G. Marion, R. Chaplin-Kramer, M. Dainese, J. Ekroos, H. Grab, M. Jonsson, **D.S. Karp,** C. Meyer, M. E. O'Rourke, M. Pontarp, K. Poveda, R. Seppelt, H.G. Smith, and Y. Clough (In Press) A review of models of natural pest control: toward predictions across agricultural landscapes. *Biological Control.*

Smith, O., E.M. Olimpi, N. Navarro-Gonzalez, K. Cornell, L.O. Frishkoff, T.D. Northfield, T.M. Bowles, A. Edworthy, J. Eilers, Z. Fu, K. Garcia, D.J. Gonthier, M.S. Jones, C.M. Kennedy, C.E. Latimer, J.P. Owen, C. Sato, J.M. Taylor, E.E. Wilson-Rankin, W.E. Snyder, **D.S. Karp**. (In Press) A trait-based framework for predicting foodborne pathogen spillover from wild birds. *Ecological Applications.*

Samaddar, S., **D.S. Karp**, R. Schmidt, N. Devarajan, J.A. McGarvey, A. Pires, and K. Scow. (2021) Role of soil in the regulation of human and plant pathogens: soils' contributions to People. *Philosophical Transactions of the Royal Society B* **376:** 20200179.

Devarajan, N., J. McGarvey, K.M. Scow, M.S. Jones, S. Lee, S. Samaddar, R. Schmidt, T. Tran, and **D.S. Karp** (2021) Cascading effects of composts and cover crops on soil chemistry, bacterial communities, and the survival of foodborne pathogens. *Journal of Applied Microbiology.*

Echeverri*, A., **D.S. Karp***, L.O. Frishkoff, J. Krishnan, R. Naidoo, J. Zhao, and K.M.A. Chan (2021) Avian cultural services peak in tropical wet forests. *Conservation Letters* **14**: e12763.

Bay, R.A., **D.S. Karp**, J.F. Saracco, W.R.L. Anderegg, L. Frishkoff, D. Wiedenfeld, T.B. Smith, and K. Ruegg. (2021) Genetic variation reveals individual-level climate tracking across the full annual cycle of a migratory bird. *Ecology Letters* **24**: 819-828.

Paredes, D., J.A. Rosenheim, R. Chaplin-Kramer, S. Winter, and **D.S. Karp** (2021). Landscape simplification increases vineyard pest outbreaks and insecticide use. *Ecology Letters* 14: 73-83.

Tamburini, G., G. Santoiemma, M. O'Rourke, R. Bommarco, R. Chaplin-Kramer, M. Daineese, **D.S. Karp**, T.N. Kim, E.A. Martin, M. Peterson, and L. Marini (2020) Species traits elucidate crop pest response to landscape composition: a global analysis. *Proceedings of the Royal Society: B* 287: 20202116.

Garcia, K., E.M. Olimpi, **D.S. Karp**, and D.J. Gonthier (2020) The good the bad and the risky: can birds be incorporated as biological control agents into integrated pest management programs. *Journal of Integrated Pest Management* **11:** 1-11.

Olimpi, E.M., K. Garcia, D. Gonthier, K.T. De Master, A. Echeverri, C. Kremen, A.R. Sciligo,

W.E. Snyder, E. Wilson-Rankin, and **D.S. Karp** (2020) Shifts in species interactions and farming contexts mediate net effects of birds in agroecosystems. *Ecological Applications* **30:** e02115.

Echeverri, A., **D.S. Karp**, R. Naidoo, J.A. Tobias, J. Zhao, and K. Chan (2020) Can avian functional traits predict cultural ecosystem services? *People and Nature* **2:** 138-151.

González-Chang, M., S.D. Wratten, M.W. Shields, R. Costanza, M. Dainese, G.M. Gurr, J. Johnson, **D.S. Karp**, J.W. Ketelaar, J. Nboyine, J. Pretty, R. Rayl, H. Sandhu, M. Walker, and W. Zhou (2020) Understanding the pathways from biodiversity to agro-ecological outcomes: a new, interactive approach. *Agriculture, Ecosystems, and the Environment* **301:** 107053.

Olimpi, E.M., P. Baur, D. Gonthier, **D.S. Karp**, C. Kremen, A. Sciligo, and K.T. De Master (2019) Evolving food safety pressures in California's Central Coast region. *Frontiers in Sustainable Food Systems* **3:**102.

Dainese, M., E.A. Martin, M.A. Aizen, M. Albrecht, I. Bartomeus, R. Bommarco, L.G. Carvalheiro, R. Chaplin-Kramer, V. Gagic, L.A. Garibaldi, J. Ghazoul, H. Grab, Mattias Jonsson, **D.S. Karp**, C.M. Kennedy, D. Kleijn, C. Kremen, D.A. Landis, D.K. Letourneau, L. Marini, K. Poveda, R. Rader, H.G. Smith, T. Tscharntke, G.K.S. Andersson, I. Badenhausser, S. Baensch, A.D.M. Bezerra, F.J.J.A. Bianchi, V. Boreux, V. Bretagnolle, B. Caballero-Lopez, P. Cavigliasso, A. Ćetković, N.P. Chacoff, A. Classen, S. Cusser, F.D. da Silva e Silva, G.A. de Groot, J. H. Dudenhöffer, J. Ekroos, T. Fijen, P. Franck, B.M. Freitas, M.P.D. Garratt, C. Gratton, J. Hipólito, A. Holzschuh, L. Hunt, A.L. Iverson, S. Jha, T. Keasar, T.N. Kim, M. Kishinevsky, B.K. Klatt, A.-M. Klein, K.M. Krewenka, S. Krishnan, A.E. Larsen, C. Lavigne, H. Liere, B. Maas, R.E. Mallinger, E.M. Pachon, A. Martínez-Salinas, T.D. Meehan, M.G.E. Mitchell, G.A.R. Molina, M. Nesper, L. Nilsson, M.E. O'Rourke, M.K. Peters, M. Plećaš, S.G. Potts, D.L. Ramos, J.A. Rosenheim, M. Rundlöf, A. Rusch, A. Sáez, J. Scheper, M. Schleuning, J. Schmack, A.R. Sciligo, C. Seymour, D.A. Stanley, R. Stewart, J.C. Stout, L. Sutter, M.B. Takada, H. Taki, G. Tamburini, M. Tschumi, B.F. Viana, C. Westphal, B.K. Willcox, S.D. Wratten, A. Yoshioka, C. Zaragoza-Trello, W. Zhang, Y. Zou, and I. Steffan-Dewenter (2019) A global synthesis reveals biodiversity-mediated benefits for crop production. *Science Advances* **5:** eaax0121.

Mastrángelo, M.E., N. Perez-Harguindeguy, L. Enrico, E. Bennett, S. Lavorel, G.S. Cumming, D. Abeygunawardane, L.D. Amarilla, B. Burkhard, B.N. Egoh, L.O. Frishkoff, L. Galetto, S. Huber, **D.S. Karp**, A. Ke, E. Kowaljow, A. Kronenburg-García, B. Locatelli, B. Martín-López, P. Meyfroidt, T.H. Mwampamba, J. Nel, K.A. Nicholas, C. Nicholson, E. Oteros-Rozas, S.J. Rahlao, C. Raudsepp-Hearne, T. Ricketts, U.B. Shrestha, C. Torres, K.J. Winkler, and K. Zoeller (2019) Key knowledge gaps to achieve global sustainability goals. *Nature Sustainability* **2**: 1115-1121.

Shackelford, G., R. Kelsey, W. Sutherland, C.M. Kennedy, S. Wood, S. Gennet, **D.S. Karp**, C Kremen, N. Seavy, J. Jedlicka, K. Gravuer, S. Kross, D. Bossio, A. Muñoz-Sáez, D. Griffin, K. Garbach, L. Ford, M. Felice, M. Reynolds, D. Rao, K. Boomer, G. LeBuhn, and L. Dicks (2019) Evidence synthesis as the basis for decision analyses: a method of selecting the best agricultural practices for multiple ecosystem services. *Frontiers in Sustainable Food Systems.* **3**: 83.

Chaplin-Kramer, R., M. O'Rourke, N. Schellhorm, W. Zhang, B. Robinson, C. Gratton, J.A. Rosenheim, T. Tscharntke, and **D.S. Karp** (2019) Measuring what matters: actionable

information for conservation biocontrol in multifunctional landscapes. *Frontiers in Sustainable Food Systems.* **3:** 60.

Echeverri, A., L.O. Frishkoff, J.P. Gomez, J.R. Zook, P. Juárez, R. Naidoo, K.M.A. Chan, and **D.S. Karp** (2019) Precipitation and tree cover gradients structure avian alpha-diversity in Northwestern Costa Rica. *Diversity and Distributions.* **25:** 1222-1233.

Gonthier, D., A. Sciligo, **D.S. Karp**, A. Lu, K. Garcia, G. Juarez, T. Chiba, and C. Kremen (2019) Bird services and disservices to strawberry farming in Californian agricultural systems. *Journal of Applied Ecology.* **56**: 1948-1959.

Karp, D.S., A. Echeverri, J. Zook, P. Juárez, A. Ke, J. Krishnan, K.M.A. Chan, and L.O. Frishkoff (2019) Remnant forest on private land fosters Neotropical bird communities that are indistinguishable from formal reserves. *Journal of Applied Ecology.* **56:** 1839-1849.

Frishkoff, L.O. and **D.S. Karp** (2019) Species-specific responses to habitat conversion across scales synergistically restructure Neotropical bird communities. *Ecological Applications* **29:** e01910.

Frishkoff, L.O., A. Ke, I. Martins, E. Olimpi, and **D.S. Karp** (2019) Countryside Biogeography: The controls of species distributions in human-dominated landscapes. *Current Landscape Ecology Reports* **4**: 15-30.

Echeverri, E., R. Naidoo, **D.S. Karp**, K.M.A. Chan, and J. Zhao (2019) Iconic manakins and despicable grackles: comparing bird-related cultural ecosystem services across birdwatchers, farmers, and urbanites in Northwestern Costa Rica. *Ecological Indicators* **106**:105454.

Dinat, D., A. Echeverri, M. Chapman, **D.S. Karp**, and T. Satterfield (2019) Eco-xenophobia among rural populations: the Great-tailed Grackle as a contested species in Guanacaste, Costa Rica. *Human Dimensions of Wildlife.* **24:** 332-348.

Jones, M.S., Z. Fu, J.P. Reganold, **D.S. Karp**, T.E. Besser, J.M. Tylianakis, and W.E. Snyder (2019) Organic farming promotes biotic resistance to food-borne human pathogens. *Journal of Applied Ecology* **56**: 1117-1127.

Paredes, D., **D.S. Karp**, R. Chaplin Kramer, E. Benítez, and M. Campos (2019) Natural habitat increases the economic value of natural pest control in olive groves. *Journal of Pest Science* **92**: 1111-1121.

Maas, B., S. Heath, I. Grass, C. Cassano, A. Classen, D. Faria, P. Gras, K. Williams-Guillén, M. Johnson, **D. S. Karp**, V. Linden, A. Martínez-Salinas, J. Schmack, and Sara Kross (2019) Experimental field exclosure of birds and bats in agricultural systems - methodological insights, potential improvements, and cost-benefit trade-offs. *Basic and Applied Ecology* **35:** 1-12.

Karp, D. S., R. Chaplin-Kramer, T. D. Meehan, E. A. Martin, F. DeClerck, H. Grab, C. Gratton, L. Hunt, A. E. Larsen, A. Martínez-Salinas, M. E. O'Rourke, A. Rusch, K. Poveda, M. Jonsson, J. A. Rosenheim, N. A. Schellhorn, T. Tscharntke, S. D. Wratten, W. Zhang, A. L. Iverson, L. S. Adler, M. Albrecht, A. Alignier, G. M. Angelella, M. Zubair Anjum, J. Avelino, P. Batáry, J. M. Baveco, F. J. J. A. Bianchi, K. Birkhofer, E. W. Bohnenblust, R. Bommarco, M. J. Brewer, B. Caballero-López, Y. Carrière, L. G. Carvalheiro, L. Cayuela,

M. Centrella, A. Ćetković, D. C. Henri, A. Chabert, A. C. Costamagna, A. De la Mora, J. de Kraker, N. Desneux, E. Diehl, T. Diekötter, C. F. Dormann, J. O. Eckberg, M. H. Entling, D. Fiedler, P. Franck, F. J. Frank van Veen, T. Frank, V. Gagic, M. P. D. Garratt, A. Getachew, D. J. Gonthier, P. B. Goodell, I. Graziosi, R. L. Groves, G. M. Gurr, Z. Hajian-Forooshani, G. E. Heimpel, J. D. Herrmann, A. S. Huseth, D. J. Inclán, A. J. Ingrao, P. Iv, K. Jacot, G. A. Johnson, L. Jones, M. Kaiser, J. M. Kaser, T. Keasar, T. N. Kim, M. Kishinevsky, D. A. Landis, B. Lavandero, C. Lavigne, A. Le Ralec, D. Lemessa, D. K. Letourneau, H. Liere, Y. Lu, Y. Lubin, T. Luttermoser, B. Maas, K. Mace, F. Madeira, V. Mader, A. M. Cortesero, L. Marini, E. Martinez, H. M. Martinson, P. Menozzi, M. G. E. Mitchell, T. Miyashita, G. A. R. Molina, M. A. Molina-Montenegro, M. E. O'Neal, I. Opatovsky, S. Ortiz-Martinez, M. Nash, Ö. Östman, A. Ouin, D. Pak, D. Paredes, S. Parsa, H. Parry, R. Perez-Alvarez, D. J. Perović, J. A. Peterson, S. Petit, S. M. Philpott, M. Plantegenest, M. Plećaš, T. Pluess, X. Pons, S. G. Potts, R. F. Pywell, D. W. Ragsdale, T. A. Rand, L. Raymond, B. Ricci, C. Sargent, J.-P. Sarthou, J. Saulais, J. Schäckermann, N. P. Schmidt, G. Schneider, C. Schüepp, F. S. Sivakoff, H. G. Smith, K. Stack Whitney, S. Stutz, Z. Szendrei, M. B. Takada, H. Taki, G. Tamburini, L. J. Thomson, Y. Tricault, N. Tsafack, M. Tschumi, M. Valantin-Morison, M. Van Trinh, W. van der Werf, K. T. Vierling, B. P. Werling, J. B. Wickens, V. J. Wickens, B. A. Woodcock, K. Wyckhuys, H. Xiao, M. Yasuda, A. Yoshioka, and Y. Zou. (2018) Crop pests and predators exhibit inconsistent responses to surrounding landscape composition. *Proceedings of the National Academy of Sciences* **115**: E7863-E7870. **Cover Article.**

Anderegg, W.R.L., A.G. Konings, A.T. Trugman, K. Yu, D.R. Bowling, **D.S. Karp**, S. Pacala, J.S. Sperry, and B. Sulman (2018) Hydraulic diversity of forests regulates ecosystem resilience during drought. *Nature* **561:** 538-541.

Frishkoff, L.O., A. Echeverri, K.M.A. Chan, and **D.S. Karp** (2018) Do correlated responses to multiple environmental changes exacerbate or mitigate species loss? *Oikos* **127:** 1724-1734. **Cover Article.**

Echeverri, A., **D. S. Karp**, R. Naidoo, J. Zhao, and K.M.A. Chan (2018) Approaching human-animal relationships from multiple angles: a synthetic perspective. *Biological Conservation*: **224**: 50-62.

Karp, D.S., L.O. Frishkoff, A. Echeverri, J. Zook, P. Juárez, and K.M.A. Chan (2018) Agriculture erases climate-driven β-diversity in Neotropical bird communities. *Global Change Biology* **24**: 338-349.

Stegner, M.A., **D.S. Karp**, A.J. Rominger, and E.A. Hadly (2017) Can protected areas really maintain mammalian diversity? Insights from a nestedness analysis of the Colorado Plateau. *Biological Conservation* **209:** 546-553.

Turcotte, M.M., Araki, H., **Karp, D.S.,** Poveda, K., and Whitehead, S.R. The eco-evolutionary impacts of domestication and agricultural practices on wild species. (2017) *Philosophical Transactions of the Royal Society B* **372**: 20160033.

Tscharntke, T., **D.S. Karp**, R. Chaplin-Kramer, P. Bátary, F. DeClerk, C. Gratton, L. Hunt, A. Ives, M. Jonsson, A. Larsen, E.A. Martin, A. Martínez-Salinas, T.D. Meehan, M. O'Rourke, K. Poveda, J.A. Rosenheim, A. Rusch, N. Schellhorn, T.C. Wanger, S. Wratten, and W. Zhang (2016) When natural habitat fails to enhance biological pest control- five hypotheses. *Biological Conservation* **204:** 449-458.

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PUBLICATIONS IN REVIEW

Ke, A., R. Sollmann, L.O. Frishkoff, and **D.S. Karp.** (In Review) A hierarchical N-mixture model to estimate shifts in animal behavior. *Ecological Applications.*

Carlisle, L., K.E. Esquivel, P. Baur, N.. Ichikawa, E.M. Olimpi, J. Ory, H. Waterhouse, A. Iles, **D.S. Karp**, C. Kremen, and T. Bowles. (In Review) Adoption of diversification practices among organic vegetable growers on the Central Coast of California. *Agroecology and Sustainable Food Systems.*

Alexandridis, N., G. Marion, R. Chaplin-Kramer, M. Dainese, J. Ekroos, H. Grab, M. Jonsson, **D.S. Karp,** C. Meyer, M. E. O'Rourke, M. Pontarp, K. Poveda, R. Seppelt, H.G. Smith, Y. Clough, and E.A. Martin. (In Review) Archetype models for upscaling understanding of natural pest control response to land-use change. *Ecological Applications.*

Balvanera, P., I.R. Geijzendorffer, A. Cord, E.G. Drakou, **D.S. Karp**, B. Martín-López, T.H. Mwampamba, K.A. Brauman, and M. Schröter (In Review) Essential ecosystem service variables for monitoring progress towards sustainability. *Current Opinion in Environmental Sustainability.*

E.M. Olimpi, K. Garcia, D.J. Gonthier, C. Kremen, W.E. Snyder, E.E. Wilson-Rankin, and **D.S. Karp**. (In Review) Farmland diversification shapes tradeoffs and synergies in bird-mediated ecosystem services and disservices. *Journal of Applied Ecology.*

Chapman, M., S. Wiltshire, P. Baur, T.M. Bowles, L. Carlisle, F. Castillo, K. Eszquivel, A. Iles, D.S. Karp, C. Kremen, J.A. Liebert, E.M. Olimpi, J. Ory, M. Ryan, A.R. Sciligo, J. Thompson, H. Waterhouse, S. Gennet, and C. Boettiger. (In Review) Tipping points in diversified farming systems. *One Earth.*

Paredes, D., J.A. Rosenheim, and **D.S. Karp**. (In Review) The causes and consequences of pest population stability in agricultural landscapes. *Ecological Applications.*

POPULAR PUBLICATIONS

Garcia, K., E.M. Olimpi, **D.S. Karp**, and D.J. Gonthier (2020) Birds, bugs, and agriculture: is it a sin to kill a mockingbird? *Entomology Today.* Entomological Society of America.

A. Echeverri, **D.S. Karp,** and J. Tobias (2020) Loved or loathed: Why are some Neotropical birds more popular than others. *Neotropical Birding.*

D.S. Karp and A. Echeverri. (2019) Forest patches in working landscapes offer surprising opportunities to conserve neotropical birds. *The Applied Ecologist*. Journal of Applied Ecology Blog. https://appliedecologistsblog.com/2019/06/27/forest-patches-neotropical-birds/

D.S. Karp, S. Gennet, and R. Kelsey (2014) Can we grow safe produce and conserve nature at the same time? *Cool Green Science.* The Nature Conservancy. http://blog.nature.org/science/2014/12/15/safe-produce-conservation-nature-wildlife-ecoli-habitat-foodborne

L.O. Frishkoff and **D.S. Karp** (2014) Preserving evolutionary history alongside tropical agriculture. *Landscapes Blog for People, Food, and Nature*. EcoAgricultural Partners. http://peoplefoodandnature.org/blog/preserving-evolutionary-history-alongside-tropical-agriculture/

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Keyes, S.M. and **D.S. Karp**. (2014) The Bard's Birds. *The Pacific Standard*. http://www.psmag.com/navigation/nature-and-technology/shakespeare-fanatic-introduced-bards-birds-america-82279/

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INVITED TALKS

2021	Vegetated Practices and Food-Safety Impacts Webinar, California Marine Sanctuary Foundation
2021	Kellogg Biological Station, Michigan State University
2021	Department of Wildlife, Fish, and Conservation Biology, University of California, Davis
2021	Project Director's Meeting, United States Department of Agriculture
2020	Beeyond Environmental Science Series, Webinar
2020	UC Davis Environmental Law Symposium, University of California, Davis
2020	California District Attorneys Association, Long Beach, California
2019	Department of Evolution and Ecology, University of California, Davis
2019	Water Control Board, Watsonville, California
2019	SINAC and MINEAT, Hojancha, Costa Rica
2019	Taylor Farms, Watsonville, California
2019	Corredor Biológico Hojancha-Nandayure, Hojancha, Costa Rica
2019	Presentation to the Chinese Academy of Agricultural Sciences Delegation, University of California, Davis
2018	Project Director's Meeting, United States Department of Agriculture
2018	School of Forest Resources and Environmental Science, Michigan Technological University
2018	Department of Ecology and Evolutionary Biology, Tulane University
2018	Department of Entomology, University of California, Davis
2018	Dept. of Wildlife, Fish, & Conservation Biology, University of California, Davis
2018	Biological Control Modeling Workshop, Lund University
2018	Department of Ecology and Evolutionary Biology, University of Arizona
2018	Department of Ecology, Evolution, and Behavior, UT Austin
2018	Western Section Student Conclave, The Wildlife Society
2017	Project Director's Meeting, United States Department of Agriculture
2017	Wildlife, Fish, and Conservation Biology Seminar Series, UC Davis
2017	Wildlife Seminar Series, UC Berkeley
2016	Canada Wildlife Service, Environment and Climate Change Canada
2016	Institute for Resources, Environment, & Sustainability Seminar Series, University of British Columbia
2016	Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)

2016 Way Cool Seminar Series, Biodiversity Research Centre, University of British Columbia
2016 Department of Food Science, Cornell University
2015 Department of Wildlife, Fish, and Conservation Biology, UC Davis
2015 Department of Anthropology, UC Davis
2015 Department of Ecology and Evolutionary Biology, Princeton University
2014 Swedish University of Agricultural Sciences
2014 Center for Latin American Studies, Stanford University
2014 MARINE seminar series, Moss Landing Biological Labs
2014 Hann endowed lecture, University of Michigan, Biological Station
2014 Early Career Scientist Symposium, University of Michigan.
2014 Center for Tropical Research, University of California Los Angeles
2014 San Jose State University
2014 Essig Museum of Entomology, University of California Berkeley
2013 San Francisco State University
2009 Achauer Symposium, Stanford University

CONFERENCE PRESENTATIONS (* = invited, + = organized symposium)

2021 Ecological Society of America+
2021 Center for Produce Safety Research Symposium*
2020 Ecological Society of America
2020 Center for Produce Safety Research Symposium*
2019 American Ornithological Society*
2018 American Ornithological Society*,+
2017 Ecological Society of America*
2017 Developing BONs in Latin America, Stanford University*
2017 Natural Capital Symposium, Stanford University*
2016 North American Ornithological Congress
2016 Ecological Society of America
2015 Natural Capital Symposium, Stanford University
2014 Ecological Society of America
2013 Association for Tropical Biodiversity and Conservation*
2013 All Science Meeting, The Nature Conservancy
2012 Species Interactions Workshop, Stanford University/UC Santa Cruz
2012 Ecological Society of America
2012 North American Congress of the Society for Conservation Biology
2012 Species Interactions Workshop, Stanford University/UC Santa Cruz
2011 Ecological Society of America
2011 Bay Area Conservation Biology Symposium

MEDIA AND OUTREACH

I have worked with the UC Davis and Stanford University press offices to develop releases, and have been interviewed for print, online, television, and radio media. Outlets include Nature News, PBS, and NPR. Articles have been published in English, Spanish, Dutch, and German.