Daniel S. Karp

Wildlife, Fish, and Conservation Biology
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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
GPA 4.25/4.00
Advisor: Gretchen Daily

2005-2009 BS, Biology- Ecology and Evolution Track, Stanford University
BS, Earth Systems- Biosphere Concentration, Stanford University
GPA 4.03/4.00
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
2019-present Naresh Devarajan, Postdoctoral Researcher
2019-present Daniel Paredes, Postdoctoral Researcher
2017-present Elissa Olimpi, Postdoctoral Researcher

Graduate Students
2019-present Katherine Lauck, PhD student (supervisor).
2017-present Alison Ke, PhD student (supervisor).

Graduate Student Committees
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
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.
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.
2017-2020 **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. Attended meetings in Monterey, Rome, Paris, and Potsdam. Helped write manuscripts and designed research aimed at reporting ecosystem services at national scales.

2018 **Symposium Organizer,** American Ornithological Society. Organized a symposium focused on avian responses to environmental gradients in the tropics at the annual American Ornithological Society conference.

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 the first 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

2020-present Admissions Committee (*Graduate Group in Ecology*), vice-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
2018-present 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

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)

2019-present Center for Produce Safety (PI; $290,678)
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; $89,711)
2017-present 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
2004 Achievement in Environmental Change, Lindsay Wildlife Museum

PUBLICATIONS (* = shared first authorship)

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) Understand 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 at the core of linkages between people and nature. *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 Guancaste, 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.

Karp, DS, R. Moses, S. Gennet, M. Jones, S. Joseph, L.K. M'Gonigle, L.C. Ponisio, W.E. Snyder, and C. Kremen. (2016) Agricultural practices for food safety threaten pest-control services to fresh produce. *Journal of Applied Ecology* **53**: 1402-1412.

Balvanera, P., S. Quijas, **D.S. Karp**, N. Ash, E. Bennett, R. Boumans, C. Brown, K. Chan, R. Chaplin-Kramer, B.S. Halpern, J. Honey-Roses, C.K. Kim, W. Cramer, M.J. Martínez-Harms, H. Mooney, T. Mwampamba, J. Nel, S. Polasky, B. Reyers, J. Roman, W. Turner, R.J. Scholes, H. Tallis, K. Thonicke, F. Villa, M. Walpole, and A. Walz. (2016) Ecosystem Services. In: GEO Handbook on Biodiversity Observation Networks. Springer pp. 39-78.

Frishkoff, L.O., **D.S. Karp**, J.R. Flanders, J. Zook, E.A. Hadly, G.C. Daily, and L.K. M'Gonigle. (2016) Climate change and habitat conversion favour the same species. *Ecology Letters* **19:** 1081-1090.

Baur, P., L. Driscoll, S. Gennet, and **D.S. Karp**. (2016) Inconsistent food safety pressures complicate environmental conservation for California produce growers. *California Agriculture* **70:** 142-151.

Maas, B., **D.S. Karp**, J. S. Bumrungsri, K. Darras, C. Huang, C. Lindell, J. Maine, L. Mestre, N. Michel, E. Morrison, I. Perfecto, S. Philpott, C.H. Sekercioglu, R.M. Silva, T. Tscharntke, S. Van Bael, C.J. Whelan, K. Williams-Guillen (2016) Bird and bat predation services in tropical forests and agroforestry landscapes. *Biological Reviews*. 91: 1081-1101.

Karp, D.S.*, P. Baur*, E.R. Atwill, K. DeMaster, S. Gennet, A. Iles, J. Nelson, A. Sciligo, and C. Kremen (2015) Unintended ecological and social impacts of food safety regulations in the California Central Coast. *BioScience* **65**: 1173-1183.

Wood, S., **D.S. Karp**, F. DeClerke, C. Kremen, S. Naeem, and C. Palm (2015) A functional trait approach for understanding the impacts of biodiversity in agriculture. *Trends in Ecology and Evolution* **30**: 531-539.

Karp, D.S., H. Tallis, R. Sachse, B. Halpern, K. Thonicke, W. Cramer, B. Tietjen, H. Mooney, S. Polasky, B. Tietjen, K. Waha, A. Walz, and S. Wolny. (2015) National indicators for observing ecosystem service change. *Global Environmental Change* **35**: 12-21.

Karp, D.S., S. Gennet, C. Kilonzo, M. Partyka, N. Chaumont, E.R. Atwill, and C. Kremen. (2015) Co-managing agriculture for nature conservation and food safety. *Proceedings of the National Academy of Sciences* **112**: 11126-11131.

Karp, D.S., C.D. Mendenhall, E. Callaway, L. Frishkoff, P.M. Kareiva, P.R. Ehrlich and G.C. Daily (2015) Confronting and resolving competing values behind conservation objectives. *Proceedings of the National Academy of Sciences* **112**: 11132-11137.

Karp, D.S., C.D. Mendenhall, E. Callaway, L. Frishkoff, P.M. Kareiva, P.R. Ehrlich and G.C. Daily (2015) Reply to Kirchkoff: Homogenous and mutually exclusive conservation typologies are neither possible nor desirable. *Proceedings of the National Academy of Sciences* **112**: e5906.

Daily, G.C. and **D.S. Karp** (2015) Nature's bounties: reliance on pollinators for health *The Lancet* **386**: 1925-1927.

Tallis, H, J. Lubchenco,...**D.S. Karp**..., et al. (2014) A call for inclusive conservation. *Nature* **515**: 27-28.

Karp, D.S., S. Judsen, E. Hadly, and G. Daily (2014) Molecular diagnosis of bird-mediated pest

control across tropical countryside. *SpringerPlus* **3**: 630.

Frishkoff, L.*, **D.S. Karp***, C.D. Mendenhall, L. M'Gonigle, J. Zook, C. Kremen, E.A. Hadly, and G.C. Daily. (2014) Loss of avian phylogenetic diversity in Neotropical agricultural systems. *Science* **345**: 1343-1346.

Mendenhall, C.D., **D.S. Karp**, C.F.J. Meyer, E.A. Hadly, and G.C. Daily. (2014) Predicting biodiversity change and averting collapse in agricultural landscapes. *Nature* **509:** 213-217.

Karp, D.S. and G. Daily (2014) Cascading effects of insectivorous birds and bats in tropical coffee plantations. *Ecology* **95:** 1065-1074.

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Karp, D.S., G. Ziv, J. Zook, P.R. Ehrlich, and G.C. Daily (2011) Resilience and stability in bird guilds across tropical countryside. *Proceedings of the National Academy of Sciences* **108**: 21134-21139.

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Karp, D.S. and T. Root (2009) Sound the stressor: how hoatzins (Opisthocomus hoazin) react to ecotourist conversation. *Biodiversity and Conservation* **18**: 3733-3742.

PUBLICATIONS IN REVIEW

D. Paredes, J.A. Rosenheim, R. Chaplin-Kramer, S. Winter, and **D.S. Karp** (In Review)

Ecoinformatic analyses reveal that landscape simplification increases vineyard pest outbreaks and insecticide use. *Ecology Letters.*

Echeverri*, A., **D.S. Karp***, L.O. Frishkoff, J. Krishnan, R. Naidoo, J. Zhao, and K.M.A. Chan (In Review) Cultural and ecological priorities coincide in wet forests for conserving Neotropical birds. *Frontiers in Ecology and the Environment.*

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 (In Review) Semi-natural habitats favour exotic pests but reduce populations of native crop specialists. *Global Change Biology.*

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

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 Review) Reducing ecological complexity using the archetype approach–an application to natural pest control. *Global Change Biology.*

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. *Nature Sustainability.*

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, 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/

D.S. Karp (2014) Discovering abundance in own backyard. *Field Notes*. Peninsula Open Space Trust. http://blog.openspacetrust.org/2014/06/26/abundance-in-our-backyard/

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/

Karp, D.S. (2012) Big farms, small farms, and biodiversity. *Landscapes Blog for People, Food, and Nature*. EcoAgricultural Partners. http://blog.ecoagriculture.org/2012/09/19/ccb_birds/

Karp, D.S. (2011) Birds, bats, and the berry borer: Conserving insectivores and pest control services in Costa Rican coffee plantations. *Amigos Newsletter* **N76**: 6-7.

Karp, D.S. (2011) Birds, bats, and la broca: valuing pest control in coffee plantations. *San Vito Bird Club Newsletter* **5**: 6-9

INVITED TALKS

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	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)

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 to develop press 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.