

**Ashley E. Larsen**  
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#### PROFESSIONAL APPOINTMENTS

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2016-2018- Assistant Professor, Bren School of Environmental Science & Management, UCSB  
2018-2021- Affiliated appointment, Geography Department, UCSB  
2018, 2021 Environmental Markets Lab Fellow, UCSB  
2015-2016 UC President's Postdoctoral Fellow, UC Berkeley  
2014-2015 Environmental Protection Agency STAR Fellow, UCSB  
2014-2015 Broom Center for Demography Graduate Research Fellow, UCSB  
2009-2012 National Science Foundation Graduate Research Fellow, UCSB

#### EDUCATION

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PhD	9/2015	<i>Ecology, Evolution &amp; Marine Biology</i> University of California, Santa Barbara
MA	6/2012	<i>Economics</i> University of California, Santa Barbara
BS	12/2008	<i>Ecology &amp; Evolutionary Biology</i> University of Michigan, Ann Arbor High honors & Distinction

#### PUBLICATIONS (\* indicates student authors)

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37. L.C. Powers\*, A.E. Larsen, B. Leonard, A.J. Plantinga. (2022). Reconnecting stranded public lands is a win-win for conservation and people. **Biological Conservation**, 270:190557. [PDF](#).
35. F. Noack, A.E. Larsen, J. Kamp, C. Levers. (2022). A bird's eye view on farm size and biodiversity. **American Journal of Agricultural Economics**. [PDF](#).
36. A. Boser\*, D. Sousa, A.E. Larsen, A. MacDonald. (2021). Mosquito-borne disease risk mapping at high spatial and temporal resolutions using remotely sensed land surface temperature measurements. **Environmental Research Letters**, 16(12) 124014. [PDF](#).
34. A.E. Larsen, L.C. Powers\*, S. McComb\*. (2021) Identifying and characterizing pest control on 9,000 fields of organic agriculture. **Nature Communications**, 12:5461. [PDF](#).
33. D.N. Farrant\*, K.L. Frank, A.E. Larsen (2021). Reuse and recycle: Integrating aquaculture and agricultural systems to increase production and reduce nutrient pollution. **Science of the Total Environment**, 785:146859. [PDF](#).
32. A.E. Larsen & F. Noack (2021). Impact of landscape complexity on the stability of field-level pest control. **Nature Sustainability**, <https://doi.org/10.1038/s41893-020-00637-8>. [PDF](#).
31. A.E. Larsen & S. McComb\* (2021). Land cover and climate changes drive regionally heterogeneous increases in US insecticide use. **Landscape Ecology**, 36: 159-177. [PDF](#).
30. M. Tao\*, P. Adler, A.E. Larsen, S. Suh (2020). Pesticide application rate and its toxicological impacts: why do they vary so widely? **Environmental Research Letters**, 15: 124049. [PDF](#).

29. [A.E. Larsen](#), D.N. Farrant\*, A. J. MacDonald. (2020). Spatiotemporal overlap of pesticide use and species richness hotspots in California. **Agriculture, Ecosystems, and Environment**, 289:106741. [PDF](#).
28. A.J. MacDonald, S. McComb\*, C. O'Neill, K.A. Padgett, [A.E. Larsen](#). (2020). Projected climate and land use change alter western blacklegged tick phenology, seasonal host-seeking suitability and human encounter risk in California. **Global Change Biology** 26:5459-5474. [PDF](#).
27. M. Dainese [...] [A.E. Larsen](#) et al. [working group]. (2019). A global synthesis reveals biodiversity-mediated benefits for crop production. **Science Advances** 5(10):eaax0121. [PDF](#).
26. F. Noack, [A.E. Larsen](#). (2019). The contrasting effects of large farms on farmer and consumer welfare. **Environmental Research Letters**, 14(8):084024. [PDF](#).
25. [A.E. Larsen](#), K. Meng, B.E. Kendall. (2019) Causal Analysis in Control-Impact Ecological Studies with Observational Data. **Methods in Ecology & Evolution**, 10(7):924-934. [PDF](#).
24. K. Bourque\*, A. Schiller\*, C. Loyola Angosto\*, L. McPhail\*, W. Bagnasco\*, A. Ayres\*, [A.E. Larsen](#). (2019). Balancing agricultural production, groundwater management, and biodiversity goals: A multi-benefit optimization model of agriculture in Kern County, California. **Science of the Total Environment**, 670:865-875. [PDF](#).
23. C. Runge, J. Withey, D. Naugle, J. Fargione, K. Helmstedt, [A.E. Larsen](#), S. Martinuzzi, J. Tack. (2019). Single species conservation as an umbrella for management of landscape threats. **PLoS One** 14(1) e0209619. [PDF](#).
22. [A.E. Larsen](#), M. Patton\*, E.A. Martin. (2019). High highs and low lows: Elucidating striking seasonal variability in pesticide use and its environmental implications. **Science of the Total Environment**, 651(1), 828-837. [PDF](#).
21. J. Vandermeer, I. Armbrrecht, A. de la Mora, K.K. Ennis, D.J. Gonthier, Z. Hajian-Forooshani, H. Hsieh, A. Iverson, D. Jackson, S. Jha, E. Jiménez-Soto, G. Lopez-Bautista, [A. Larsen](#), K. Li, H. Liere, A. MacDonald, L. Marin, K.A. Mathis, I. Monagan, J. Morris, T. Ong, G.L. Pardee, I. Saraeny Rivera, K. Williams-Guillen, S. Yitbarek, S. Uno, A. Zemenick, S.M. Philpott, I. Perfecto. (2019). The community ecology of herbivore regulation in an agroecosystem: Lessons from complex systems. **BioScience**, 69(12): 974-996. [PDF](#).
20. A. MacDonald, [A.E. Larsen](#), A. Plantinga. (2019) Missing the people for the trees: Identifying coupled natural-human system feedbacks driving the ecology of Lyme disease. **Journal of Applied Ecology** 56(2), 354-364. [PDF](#).
19. C. Runge, A.J. Plantinga, [A.E. Larsen](#), D.E. Naugle, K. Helmstedt, S. Polasky, P. Donnelly, J.T. Smith, T. Lark, J.L. Lawler, S. Martinuzzi, J. Fargione. (2019). Unintended habitat loss on private land from grazing restrictions on public rangelands. **Journal of Applied Ecology** 56, 52-62. [PDF](#).
18. A.J. Macdonald, C. O'Neill\*, M. H. Yoshimizu, K.A. Padgett, [A.E. Larsen](#). (2019). Tracking the seasonal ecological niche of the western blacklegged tick. **Journal of Applied Ecology**, 56:2562-2573. [PDF](#).
17. H. Tallis [...] [A.E. Larsen](#) et al. [working group]. (2019). Aligning evidence generation and use across health, development, and environment. **Current Opinion in Environmental Sustainability**, 39:81-93. [PDF](#).
16. D.S. Karp [...] [A.E. Larsen](#) et al. [SESYNC working group]. (2018). Crop pests and predators exhibit inconsistent responses to surrounding landscape composition. **Proceedings of the National Academy of Science, USA** 115 (33) E7863-E7870. [PDF](#).

15. D. Mall\*, [A.E. Larsen](#), E.A. Martin. (2018). Investigating the (mis) match between natural pest control knowledge and the intensity of pesticide use. **Insects**, 9(1), 2. [PDF](#).
14. K.J. Helmstedt, J.R. Stokes, [A.E. Larsen](#), M.D. Potts. (2018). Innovating at the urban food, water, energy interface. **Journal of Environmental Management**, 209:17-22. [PDF](#).
13. [A.E. Larsen](#), S. Gaines, O. Deschenes. (2017). Agricultural pesticide exposure and adverse birth outcomes in the San Joaquin Valley, CA. **Nature Communications**, 8(1) 302. [PDF](#).
12. [A.E. Larsen](#) & F. Noack. (2017). Landscape drivers of agricultural insecticide use: Evidence from 100,000 fields. **Proceedings of the National Academy of Science, USA** 114(21): 5473-5478. [PDF](#).
11. T. Tschamntke, D. Karp, R. Chaplin-Kramer, P. Batáry, F. DeClerck, C. Gratton, A. Ives, M. Jonsson, [A. Larsen](#), E. Martin, A. Martínez-Salinas, T. D. Meehan, M. O'Rourke, K. Poveda, J.A. Rosenheim, A. Rusch, N. Schellhorn, S. Wratten, W. Zhang. (2016). When natural habitat fails to enhance biological pest control. **Biological Conservation** 204:449-458. [PDF](#).
10. R. Selden, S. Valencia, [A.E. Larsen](#), J. Cornejo-Donoso, A. Wasserman\*. (2016). Evaluating seafood eco-labeling as a mechanism to reduce collateral impacts of fisheries in an ecosystem-based fisheries management context. **Marine Policy** 64: 102-115. [PDF](#).
9. [A.E. Larsen](#), B.T. Hendrickson\*, N Dedeic\*, A.J. MacDonald. (2015). Taken as a given: Evaluating the accuracy of remotely sensed crop data. **Agricultural Systems** 141: 121-125. [PDF](#).
8. [A.E. Larsen](#), S. Gaines, O. Deschenes. (2015). Spatio-temporal variation in the relationship between landscape simplification and insecticide use. **Ecological Applications** 25(7): 1976-1983. [PDF](#).
7. [A.E. Larsen](#), A. MacDonald, & A. Plantinga (2014). Lyme disease risk influences human settlement in the wildland urban interface: Evidence from a longitudinal analysis of counties in the northeastern U.S. **The American Journal of Tropical Medicine & Hygiene** 91(4): 747-755. [PDF](#).
6. [A.E. Larsen](#). (2013). Agricultural landscape simplification does not consistently drive insecticide use. **Proceedings of the National Academy of Science, USA** 110(3): 15330-15335. [PDF](#).
5. C. Costello, O. Deschenes, [A.E. Larsen](#), S. Gaines (2013). Removing biases in forecasts of fisheries status. **Journal of Bioeconomics** 16:213-219. [PDF](#).
4. [A.E. Larsen](#). (2012) Modeling multiple non-consumptive effects in simple food webs; a modified Lotka-Volterra approach. **Behavioral Ecology** 23 (5): 1115-1125. [PDF](#).
3. N.L. Gutiérrez, S.R. Valencia, T.A. Branch, D.J. Agnew, P. L. Bianchi, J. Cornejo-Donoso, C. Costello, O. Defeo, T.E. Essington, D.D. Hoggarth, [A. E. Larsen](#), C. Ninnis, R. L. Selden, S.Sistla, A.D.M. Smith, A. Stern-Pirlot, S. J. Teck, J.T. Thorson, N.E. Williams. (2012). Eco-labels convey reliable information on stock status to seafood consumers. **PLoS One** 7 (8) e43765. doi:10.1371/journal.pone.0043765. [PDF](#).
2. [A.E. Larsen](#) & S.M. Philpott. (2010). Twig-nesting ants: the hidden predators of the Coffee Berry Borer, *Hypothenemus hampei* in Chiapas, Mexico. **Biotropica** 42(3): 342–347. [PDF](#).
1. H. Liere & [A.E. Larsen](#). (2010). Cascading trait-mediation: disruption of a trait-mediated mutualism by parasite-induced behavioral modifications. **Oikos** 119: 1394–1400. [PDF](#).

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#### GRANTS & AWARDS

- 2022 USDA NIFA: Sustainable Agroecosystems: Harnessing policy-driven land use change for the sustainability, productivity and vitality of agroecosystems. With Co-Is D. Sousa & A. Quandt (\$649,958; PI).
- 2021 NSF CAREER: Understanding the conservation and restoration potential of retired agricultural land: An ecoinformatics approach. (\$593,418; PI).
- 2021 Arnhold Foundation: Spatial planning for area conservation in response to climate change. Co-I with L. Hannah, P. Roehrdanz (\$319,327).
- 2021 UCSB Faculty Research Grant (\$15,000)
- 2020 UC Global Food Institute Campus Collaborative Center. Co-lead with K. Caylor, C. Krintz. (\$25,000)
- 2020 NASA Minority University Research and Education Project: Quantifying artisanal mining and forest degradation using active-passive remote sensing data fusion (PI; PhD fellowship \$55,000/y renewable for 4 years)
- 2019 SSHRC (Canada): Rural-Urban Migration and the Environment. Co-I with F. Noack. (c\$242,672)
- 2018 UC Women's Initiative
- 2018 UCSB Faculty Research Grant
- 2015-2016 UC President's Postdoctoral Fellowship, UC Berkeley
- 2015 CU Boulder Chancellor's Postdoctoral Fellowship (*Declined*)
- 2014-2015 2013 EPA STAR (awarded 2014)
- Worster Family Mentorship Award, UCSB
- UC President's Dissertation Year Fellowship, UCSB
- 2013 Graduate Division Fellowship Year, UCSB
- Broom Center for Demography Travel & Research Grant, UCSB
- 2012 Ecology, Evolution & Marine Biology Block Grant, UCSB
- 2010-2012 Luce Environmental Science to Solutions Fellowship, UCSB
- 2009-2012 NSF Graduate Research Fellowship Program

#### INVITED SEMINARS

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- 2022 UC Davis (Integrated Pest Management)
- 2021 UC Riverside (Entomology)
- 2021 Cornell University (Dept. Natural Resources & Environment)
- 2021 Center for Environmental Economics – Montpellier
- 2020 Montana State (Land Resources & Environmental Sciences)
- 2019 Cal Poly (College of Agriculture, Food, and Environmental Sciences)
- 2019 University of Würzburg
- 2018 UBC (Land and Food Systems)
- 2018 Dartmouth College (Environmental Studies)
- 2018 International Food Policy Research Institute (Ecosystem Services, \*weather cancellation)
- 2017 Virginia Tech (Crop & Soil Environmental Science)
- 2017 UC Santa Barbara (Geography)
- 2016 UC Berkeley (Environmental Science, Policy & Management)

- 2016 UC Santa Barbara (Environmental Studies)  
2015 UC San Diego (School of Global Policy & Strategy)

#### INVITED WORKING GROUPS

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- 2017 *The Bridge Collaborative* working group member, Sustainable Food subgroup.  
2015-2017 *Science for Nature & People (SNAP)* working group titled, “Land-use Change and Conservation Policy in Brazil and the US for Biodiversity, Ecosystem Services and Economic Returns”  
2014-2016 *National Socio-Environmental Synthesis Center (SESYNC)*. Working group titled, “Evidence and Decision-Support Tools for Controlling Agricultural Pests with Conservation Interventions”.  
2010-2012 *National Center for Ecological Analysis & Synthesis (NCEAS)* Working group entitled “Can eco-labeling drive conservation and sustainable harvesting of marine fisheries?”.

#### GRADUATE STUDENT MENTORING

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- 2020- Anna Boser\* (PhD student, committee co-chair)  
2019-2021 Julia Brewer\* (MS student UBC, committee member)  
2019- Nicol Parker\* (PhD student, committee member)  
2019- Brian Lee\* (PhD student, committee chair)  
2018- D. Nakoa Farrant\* (PhD student, committee chair)  
\* indicates recipient of multi-year federal or state graduate fellowship

#### TEACHING

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- Instructor *Sustainable Food Systems* (PhD seminar; 2020-2021)  
*Faculty Research Speaker Series* (PhD seminar; 2018)  
*Conservation Planning Theory & Practice* (Master’s elective; 2017-)  
*Conservation Planning Practicum* (Master’s elective; 2017-)
- Teaching Awards 2021 Bren Distinguished Teaching Award
- Group project advisor AgPlastics (alternatives to plastic mulch; ’21-’22), AmistOsa Ag (sustainable agriculture in Costa Rica; ’20-’21), Just Health (air pollution & diabetes; ’19-’20), Naturally Insured (green infrastructure; ’18-’19), Basin Benefits (water resources in agriculture; ’17-’18)
- Pre-faculty *Undergraduate Research Apprentice Program (URAP)*. Co-mentoring two UC Berkeley students on food waste & biodiversity project.  
Teaching Assistant: *Ecology of Managed Systems; Ethology & Behavioral Ecology*. Mentoring: 3 UCSB Biology majors, 2 UCSB Economics Majors, Jack Kent Cooke Bridges Program-Mentored 4 transfer students through their first research experience.

#### CONFERENCES

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- Ecological Society of America 2021, 2017, 2015, 2014, 2013, 2011  
Landscape Ecology (IALE, IALE-US) 2019, 2018  
Integrated Pest Management 2018

SESYNC Boundary Spanning Symp.	2018
American Geophysical Union	2016
Entomological Society of America	2014, 2008

SERVICE

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Subject Matter Editor	<i>Ecosphere</i> (Agroecosystems)
Grant Reviewer	<i>NSF DEB</i> Panel (2021), <i>Biodiversa</i> (EU) ad-hoc proposal reviewer (2021), <i>UC President's Postdoctoral Fellowship Program</i> , Off-site (2019-) and on-site (2020) reviewer, <i>UCSB Boughton Communication Fellows</i> selection committee (2019), <i>UCSB eco-entrepreneurship fellowship</i> selection committee (2021).
Specialization Advisor	Conservation Planning (2017-)
Scientific Advisor	Conservation International (yield gaps & biodiversity; 2017-2018)
Committees	Eco-entrepreneurship (2021-) PhD committee (2020-) Diversity committee (2019-2020) Recruitment, admissions & support committee (2018-2019) Environ. Econ Faculty search committee (2017-2018) Communications focus committee (2017-2018)
Society Memberships	Ecological Society of America, International Association of Landscape Ecology
Organized Sessions	ESA (2021, 2020; session canceled due to Covid-19), Landscape 2021
Peer Review	<i>Proceedings of the National Academy of Sciences</i> , <i>Nature Sustainability</i> , <i>Nature Communications</i> , <i>Methods in Ecology and Evolution</i> , <i>Ecological Applications</i> , <i>Agriculture, Ecosystems &amp; the Environment</i> , <i>Biodiversity &amp; Conservation</i> , <i>Economic Entomology</i> , <i>Ecological Economics</i> , <i>Science of the Total Environment</i> , <i>Journal of Environmental Management</i> , <i>PLoS One</i> , <i>Insects</i>
Other Internal Service	External Advisor, Bren group projects (2021-2022, 2020-2021, 2018-2019, 2017-2018), Natural Science advisor (2019-; J. Gellman, A. Garcia), PhD Research Symposium judge (2017, 2021), various panels (open house, PhD career, postdoc, prospective students, eco-entrepreneurship).
Reports	K.J. Helmstedt, K.A. Jagannathan, <b>A.E. Larsen</b> , L.C. Moreno, M.J. Ohnesorge, L. Sakaguchi, A.B. Siegner, J.R. Stokes, M.D. Potts. (2015). Designing intelligent food, energy, and water systems (DIFEWS). A whitepaper funded by National Science Foundation Award CBET-1541880