ANDREA J. LUND

https://andjanlund.github.io | Twitter: @andjanlund | LinkedIn

ACADEMIC APPOINTMENTS

Postdoctoral Fellow 2021 – present

Department of Environmental and Occupational Health University of Colorado School of Public Health, Aurora, CO

Postdoctoral Scholar 2020

Department of Biology, Hopkins Marine Station Stanford University, Pacific Grove, CA

EDUCATION

PhD, Environment and Resources, Stanford University

2020

Dissertation: "Human-environment dynamics in the eco-epidemiology of schistosomiasis" Fields of inquiry: Ecology of infectious disease and social epidemiology Reading Committee: Giulio De Leo, Jason Andrews, David Lopez-Carr, David Rehkopf

MPH, Global Epidemiology, Rollins School of Public Health, Emory University

2013

Thesis: "Prevalence of cholera risk factors between migration Haitians and Dominicans in the Dominican Republic"

BA, Biology and Spanish, with High Distinction, University of Minnesota – Morris Study abroad, Duke/OTS Global Health Semester in Costa Rica, Fall 2009

2011

PUBLICATIONS

- 1. **Lund AJ,** Rehkopf DH, Sokolow SH, Sam MM, Jouanard N, Schacht AM, Senghor S, Fall A, Riveau G, De Leo GA, Lopez-Carr D 2021. Land use impacts on parasitic infection: a cross-sectional epidemiological study on the role of irrigated agriculture in schistosome infection in a dammed landscape in West Africa. *Infectious Diseases of Poverty* 10:35. https://doi.org/10.1186/s40249-021-00816-5
- 2. **Lund AJ,** Lopez-Carr D, Sokolow SH, Rohr JR, De Leo GA. 2021 Agricultural innovations to reduce the health impacts of dams. *Sustainability* 13:1869 https://doi.org/10.3390/su13041869
- 3. Hopkins S, Sokolow S, De Leo G, Buck J, Jones I, Kwong L, LeBoa C, **Lund AJ**, MacDonald A, Nova N, Olson S, Peel A, Wood C, Lafferty K. 2020. Identifying win-wins for people and nature. *Nature Sustainability*. DOI: 10.1038/s41893-020-00640-z
- 4. Jones IJ, MacDonald AJ, Hopkins S, Lund AJ, Liu ZY, Fawsi NI, Purba MP, Fankhauser K, Chamberlin AJ, Nirmala M, Blundell AG, Emerson A, Jennings J, Gaffikin L, Barry M, Lopez-Carr D, Webb K, De Leo GA, Sokolow SH. 2020. Improving rural health care reduces illegal logging and conserves carbon in a tropical forest. *Proceedings of the National Academy of Sciences* 117(45): 28515-28524 DOI: 10.1073/pnas.2009240117

- 5. Chamberlin AJ, Jones IJ, **Lund AJ**, Jouanard N, Riveau G, Ndione R, Sokolow SH, Wood CL, Lafferty KD, De Leo GA 2020. Visualization of schistosomiasis snail habitat using light unmanned aerial vehicles. *Geospatial Health* 15(2):818. DOI: 10.4081/gh.2020.818
- 6. Lund AJ, Sam MM, Sy AB, Sow OW, Ali S, Sokolow SH, Bereknyei Merrell S, Bruce J, Jouanard N, Senghor S, Riveau G, Lopez-Carr D, De Leo GA. 2019. Unavoidable risks: Local perspectives on water contact behavior and implications for schistosomiasis control in an agricultural region of northern Senegal. American Journal of Tropical Medicine and Hygiene 101(4): 837-847. DOI: 10.4269/ajtmh.19-0099
- 7. Wood CL, Sokolow SH, Jones IJ, Chamberlin AJ, Lafferty KD, Kuris AM, Jocque M, Hopkins SR, Adams G, Schneider M, Buck JC, Lund AJ, Garcia-Vedrenne AE, Fiorenza E, Rohr JR, Allan F, Webster BL, Rabone M, Webster JP, Bandagny L, Ndione R, Senghor S, Schacht AM, Jouanard N, Riveau G, De Leo GA. 2019. Precision mapping of snail habitats provides a powerful indicator of human schistosomiasis transmission. Proceedings of the National Academy of Sciences 116(46): 23182-23191. DOI: 10.1073/pnas.1903698116
- 8. Hoover CM, Sokolow SH, Kemp J, Sanchirico JN, **Lund AJ**, Jones I, Higginson T, Riveau G, Savaya-Alkalay A, Coyle S, Wood CL, Micheli F, Casagrandi R, Mari L, Gatto M, Rinaldo A, Perez-Saez J, Rohr JR, Sagi A, Remais JV, De Leo GA. 2019. Prawn aquaculture as a method for schistosomiasis control and poverty alleviation: a win-win approach to address a critical infectious disease of poverty. *Nature Sustainability* 2(7): 611-620. DOI: 10/1101/465195.
- 9. Keys HM, Kaiser BN, Foster JW, Freeman MC, Stephenson RS, **Lund AJ**, Kohrt BA. 2017. Cholera control and anti-Haitian stigma in the Dominican Republic: From migration policy to lived experience. *Anthropology & Medicine* 26(2): 123-141. DOI: 10.1080/13648470.2017.1368829
- 10. Garchitorena A, Sokolow SH, Roche B, Ngonghala CN, Jocque M, Lund A, Barry M, Mordecai EA, Daily GC, Jones JH, Andrews JR, Bendavid E, Luby SP, LaBeaud AD, Seetah K, Guegan JR, Bonds MH, De Leo GA. 2017. Disease ecology health and the environment: a framework to account for ecological and socio-economic drivers in the control of neglected tropical disease. *Philosophical Transactions of the Royal Society B.* 372(1722) DOI: 10.1080/13648470.2017.1368829
- 11. Sokolow SH, Jones IJ, Jocque M, La D, Cords O, Knight A, **Lund A**, Wood CL, Lafferty KD, Kuris AM, Hoover CM, Collender PA, Remais J, Lopez-Carr D, Fisk J, De Leo GA. 2017. Nearly 400 million people are at higher risk of schistosomiasis because dams block the migration of snail-eating river prawns. *Philosophical Transactions of the Royal Society B.* 372(1722): 20160127. DOI: 10.1098/rstb.2016.0127
- 12. **Lund AJ**, Keys HM, Leventhal S, Foster JW, Freeman MC. 2015. Prevalence of cholera risk factors between migrant Haitians and Dominicans in the Dominican Republic. *Revista Panamericana de Salud Pública* 37(3): 125-32. PMID: 25988248.
- 13. Keys H, Reyes J, Leventhal S, **Lund A,** Batista Berroa DA, Jean-Charles A, Burgos Minaya RY, Foster J. 2014. El cólera y el estigma en la Republica Dominicana. *Revista Panamericana de Salud Pública* 36(1): 63-4. PMID: 25988248.
- 14. **Lund A,** McMillan JR, Kitron U, Kelly R, Mead DG, Burkot TR, Vazquez-Prokopec G. 2014. Long-term impact of combined sewer overflows (CSO) remediation on water quality and population dynamics of *Culex quinquefasciatus*, the main urban West Nile virus vector in Atlanta, GA. *Environmental Research* 129: 20-26. PMID: 24528998. DOI: 10.1016/j.envres.2013.12.008

 Reimer RA, Houlihan AE, Gerrard M, Deer MM, Lund AJ. 2012. Ethnic differences in predictors of HPV vaccination: Comparisons of predictors for Latina and non-Latina White Women. *Journal for Sex Research* 50(8): 748-56. PMID: 23030843. DOI: 10.1080/00224499.2012.692406

Under review / in revision

- 16. **Lund AJ**, Sokolow SH, Jones IJ, Wood CL, Ali S, Chamberlin A, Sy AB, Sam MM, Jouanard N, Schacht AM, Senghor S, Fall A, Ndione R, Riveau G, De Leo GA, Lopez-Carr D. Exposure, hazard, and vulnerability all contribute to *Schistosoma haematobium* re-infection in northern Senegal. [Resubmitted to *PLoS Neglected Tropical Diseases*].
- 17. Jones IJ, Sokolow SH, Chamberlin A, **Lund AJ**, Jouanard N, Bandagny L, Ndione R, Senghor S, Schacht AM, Riveau, G, Hopkins SR, Rohr JR, Remais JV, Lafferty KD, Kuris AM, Wood CL, De Leo GA. Schistosome infection in Senegal is associated with different spatial extents of risk and ecological drivers for *S. haematobium* and *S. mansoni*. [Resubmitted to *PLoS Neglected Tropical Diseases*]
- 18. Sokolow SH, Jones IJ, Wood CL, Lafferty KD, Garchitorena A, Hopkins SR, **Lund AJ**, MacDonald AJ, Nova N, LeBoa C, Peel AJ, Mordecai EA, Chamberlin A, Howard M, Buck JC, Lopez-Carr D, Barry M, Bonds M, De Leo GA. More than one third of global human infectious disease burden is environmentally mediated, with disproportionate effects in rural poor areas. [In revision]. [Pre-print DOI: http://dx.doi.org/10.2139/ssrn.3457412]
- 19. Hopkins SR, Lafferty KD, Wood CL, Olson SH, Buck JC, Childs M, De Leo GA, Fiorella KJ, Fornberg J, Garchitorena A, Howard ME, Jones IJ, Kuris AM, Kwong LH, LeBoa C, Leon AE, **Lund AJ**, MacDonald AJ, Metz DCG, Nova N, Peel AJ, Remais JV, Stewart Merrill TE, Wilson M, Bonds MH, Dobson AP, Lopez-Carr D, Mandle L, Sokolow SH. Diversity and evidence gaps among potential winwin solutions for conservation and human infectious disease control. [Under review].
- 20. Haggerty C, Delius B, Jouanard N, Nado P, De Leo G, **Lund A**, Lopez-Carr D, Remais J, Riveau G, Sokolow S, Rohr J. Identifying low risk insecticides to address both food shortages and the biocontrol of human schistosomiasis. [Under review]. [Pre-print DOI: https://doi.org/10.1101/2021.01.05.425425]
- 21. **Lund AJ***, Harrington ES*, Albrecht TR, Hora T, Wall RE, Andarge T. Priorities in dam management: An interdisciplinary analysis of health as a component of the food-energy-water nexus in the Senegal River Basin. *co-first authors. [Under review]

Book chapters

22. Jones IJ, **Lund A**, Riveau G, Jouanard N, Ndione R, Sokolow SH, De Leo GA. 2018. Ecological control of schistosomiasis in sub-Saharan Africa: restoration of predator-prey dynamics to reduce transmission. In: *Ecology and Evolution for Control of Infectious Diseases in Low-Income Countries: Broadening the Scope for Public Health Management*, pp 236-251. Eds B. Roche, H Broutin and F Simard. Oxford University Press. DOI: 10.1093/oso/9780198789833.003.0015

Published abstract

23. Lund AJ, SH Sokolow, IJ Jones, CL Wood, S Ali, A Chamberlin, AB Sy, MM Sam, N Jouanard, AM Schacht, S Senghor, A Fall, R Ndione, G Riveau, GA De Leo, D Lopez-Carr. "Exposure, hazard and vulnerability all contribute to Schistosoma haematobium re-infection in northern Senegal" *Lancet Planetary Health* 5(S10). DOI: https://doi.org/10.1016/S2542-5196(21)00094-2

Published data set

24. Lund AJ, Rehkopf DH, Sokolow SH, Sam MM, Jouanard N, Schacht AM, Senghor S, Fall A, Riveau G, De Leo GA, Lopez-Carr D 2021. Land use impacts on parasitic infection: a cross-sectional epidemiological study on the role of irrigated agriculture in schistosome infection in a dammed landscape in West Africa. Dryad, dataset, https://doi.org/10.5061/dryad.sf7m0cg4m

RESEARCH GRANTS

2017-2019	Graduate Pursuits Program, travel support for 18-month working group (Lead-PI) National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD
2019	Capacity Building and Public Engagement Grant, \$7,000 in travel support (Co-PI) King Center on Global Development, Stanford University
2019	Global Health Seed Grant, \$50,000 to conduct evaluation of NGO program (Co-I) Center for Innovation in Global Health, Stanford University
2016-2018	McGee & E-IPER Summer Research Grants, \$14,000 for dissertation research (Lead-PI) School of Earth, Energy & Environmental Sciences, Stanford University
2012	Multidisciplinary Field Scholar Team Award, \$12,000 for MPH thesis field work (Co-I) Emory Global Health Institute, Emory University

AWARDS & FELLOWSHIPS

2017-2020	James & Nancy Kelso Fellowship Stanford Interdisciplinary Graduate Fellowship (SIGF) program, Stanford University
2015-2017	Davis Family E-IPER Fellowship School of Earth, Energy & Environmental Sciences, Stanford University
2015-2016	Eugene Cota-Robles Fellowship , Central Recruitment Award, <i>declined</i> Graduate Division, University of California, Santa Barbara
2011	Scholar of the College, University of Minnesota, Morris
2011	John Q. Imholte Scholarship, University of Minnesota, Morris
2011	Finalist, Katherine E. Sullivan Scholarship for Study Abroad, <i>withdrew</i> Honors Program & Office of International Programs, University of Minnesota
2011	Finalist, Post-Bachelor Fellowship , <i>not awarded</i> Institute for Health Metrics and Evaluation, University of Washington
2009	Study abroad scholarship, Duke University/Organization for Tropical Studies
2008-2009	Morris Academic Partner, University of Minnesota, Morris
2007	Academic All-Conference, Women's Soccer, Upper Midwest Athletic Conference
2006-2010	Presidential Scholarship, University of Minnesota, Morris
2006-2010	Chancellor's Scholarship, University of Minnesota, Morris

PRESENTATIONS

- 1. **Lund AJ**, SH Sokolow, IJ Jones, CL Wood, S Ali, A Chamberlin, AB Sy, MM Sam, N Jouanard, AM Schacht, S Senghor, A Fall, R Ndione, G Riveau, GA De Leo, D Lopez-Carr. "Exposure, hazard and vulnerability all contribute to Schistosoma haematobium re-infection in northern Senegal." Lightning talk. *Planetary Health Alliance Annual Meeting*, April 2021. (Virtual due to COVID-19).
 - Selected as one of the "Best Abstracts in Planetary Health" among 2021 submissions.
- Lund AJ, SH Sokolow, IJ Jones, AJ Chamberlin, CL Wood, AB Sy, MM Sam, N Jouanard, AM Schacht, S Senghor, A Fall, G Riveau, GA De Leo, D Lopez-Carr. "Integrating water contact behavior, environmental hazard and social vulnerability into estimates of schistosomiasis occurrence in northern Senegal." Poster presenter. American Society of Tropical Medicine and Hygiene Annual Meeting, November 2020. (Virtual due to COVID-19)
- 3. **Lund A.** "From UMN Morris to Africa: Human-environment dynamics in the eco-epidemiology of schistosomiasis." *Latterell Alumni Lecture, University of Minnesota, Morris Department of Biology*, October 2020. (Virtual due to COVID-19).
- 4. **Lund A.** "Human-environment dynamics in the eco-epidemiology of schistosomiasis" Invited talk, *Sonoma State University Biology Colloquium*, September 2020. (Virtual due to COVID-19).
- 5. **Lund AJ**, DH Rehkopf, SH Sokolow, N Jouanard, A Fall, G Riveau, JR Andrews, GA De Leo, D Lopez-Carr. "The role of irrigated agriculture in schistosomiasis risk in a dammed landscape in West Africa." Oral presenter. *American Society of Tropical Medicine and Hygiene Annual Meeting*, November 2019.
- 6. **Lund AJ**, DH Rehkopf, SH Sokolow, N Jouanard, A Fall, G Riveau, JR Andrews, GA De Leo, D Lopez-Carr. "The role of irrigated agriculture in schistosomiasis risk in a dammed landscape in West Africa." Poster presenter. *Planetary Health Alliance Annual Meeting*, September 2019.
- 7. Sokolow SH, IJ Jones, CL Wood, KD Lafferty, A Garchitorena, S Hopkins, M Boslough, L Marom, A Lund, AJ MacDonald, M Howard, N Nova, C Le Boa, A Peel, E Mordecai, A Chamberlin, M Barry, M Bonds & GA De Leo. "More than one third of global human infectious disease burden is environmentally mediated, with disproportionate effects in rural poor areas." Co-authored oral presentation. *Planetary Health Alliance Annual Meeting*, September 2019.
- 8. Sokolow SH, SR Hopkins, N Nova, **A Lund**, IJ Jones, AJ MacDonald, L Kwong, ME Howard, GA De Leo & KD Lafferty. "Ecological levers for health: Bright spots and knowledge gaps revealed by a quantitative literature review" Co-authored oral presentation. *Ecological Society of America Annual Meeting*, August 2019.
- 9. Hopkins SR, C Wood, S Olson, J Buck, M Childs, GA De Leo, A Dobson, J Fornberg, A Garchitorena, M Howard, IJ Jones, A Kuris, L Kwong, C LeBoa, A Leon, A Lund, AJ MacDonald, D Metz, N Nova, AJ Peel, J Remais, S Sokolow, T Stewart, M Wilson, M Bonds, K Fiorella, L Mandle, H Tallis & KD Lafferty. "Case studies on the win-win menu: which interventions work to both reduce human infectious disease and conserve nature?" Co-authored oral presentation. Ecological Society of America Annual Meeting, August 2019.
- 10. Hopkins SR, C Wood, S Olson, J Buck, M Childs, GA De Leo, A Dobson, J Fornberg, A Garchitorena, M Howard, IJ Jones, A Kuris, L Kwong, C LeBoa, A Leon, A Lund, AJ MacDonald, D Metz, N Nova, AJ Peel, J Remais, S Sokolow, T Stewart, M Wilson, M Bonds, K Fiorella, L Mandle, H Tallis & KD

- Lafferty. "Interventions on the Planetary Health menu: examples, evidence and evaluation." Co-authored poster presentation. *Ecology and Evolution of Infectious Diseases Annual Meeting*, June 2019.
- 11. **Lund A.** "Dam parasites: How dams can force people to choose between health and livelihoods." Invited talk, *Hard Earth: Development's Dilemmas,* Stanford University, April 2019.
- 12. Albrecht T, Andarge T, Harrington E, Hora T, **Lund A,** Wall R (authors listed alphabetically). "Management for Sustainable Development in the Senegal River Basin: Integrating historical and hydrological analysis of trade-offs between health and food, energy and water resources. Oral copresenter. *American Association of Geographers Annual Meeting*, April 2019.
- 13. **Lund A,** Sow O, Ali S, Sokolow SH, Jouanard N, Riveau G, Senghor S, Lopez-Carr D, De Leo G. "Unavoidable risks: persistent water contact despite local knowledge of schistosomiasis risk in an endemic region of northern Senegal." Oral presenter. *American Association of Geographers Annual Meeting*, April 2019.
- 14. **Lund A.** "Local perceptions of seasonality and water contact behavior in the Sahel: implications for schistosomiasis transmission." Oral presenter. *Stanford EARTH Annual Research Review*, April 2018.
- 15. **Lund A**, Forsyth J, Krystosik A, Sokolow S, Winter SJ, Banchoff A, King AC, De Leo G, LaBeaud D, Baiocchi M, Luby SP, Sarnquist C. "Violence and vectors: Engaging adolescent girls in participatory risk mapping in informal settlements in Fiji." Oral presenter. *Natural Capital Symposium*, March 2018.
- 16. **Lund A**, Mandle L, Hamel P, LeBoa C, Sokolow S, De Leo G. "Predicting the impact of water management infrastructure on schistosomiasis transmission risk in sub-Saharan Africa." Poster presenter. *Natural Capital Symposium*, March 2018.
- 17. McMillan JR, Blakney R, **Lund A**, Mead D, Coker S, Bisanzio D, Koval W, Kitron U, Vazquez-Prokopec G. "Road-side catch basins as sentinels for West Nile Virus-infected Culex spp. mosquitoes." Co-authored poster presentation. *American Society of Tropical Medicine and Hygiene Annual Meeting*, November 2017.
- 18. **Lund A,** Lopez-Carr D, Riveau G, Jouanard N, Diop D, Andrews J, Sokolow SH, De Leo GA. "Gauging potential schistosomiasis exposure in northern Senegal from activity-specific water contact estimates." Poster presenter. *Planetary Health Alliance Inaugural Meeting*, April 2017.
- 19. **Lund A,** Lopez-Carr D, Riveau G, Jouanard N, Diop D, Andrews J, Sokolow SH, De Leo GA. "Gauging potential schistosomiasis exposure in northern Senegal from activity-specific water contact estimates." Poster presenter. *American Society of Tropical Medicine and Hygiene Annual Meeting*, November 2016.
- 20. **Lund A, Bisanzio D, Masoumy L, Vazquez-Prokopec G.** "Impact of Weather Variability on Water Quality and Mosquito Productivity in Catch Basins in Atlanta, GA." Poster presenter. *American Society of Tropical Medicine and Hygiene Annual Meeting*, November 2014.
- 21. **Lund A,** McMillan JR, Kitron U, Kelly R, Mead DG, Burkot TR, Vazquez-Prokopec G. "Long-term impact of combined sewer overflows (CSO) remediation on water quality, mosquito abundance and West Nile virus amplification." Poster presenter. *American Society of Tropical Medicine and Hygiene Annual Meeting*, November 2012.

22. **Lund A,** McMillan JR, Kitron U, Kelly R, Mead DG, Burkot TR, Vazquez-Prokopec G. "Long-term impact of combined sewer overflows (CSO) remediation on water quality, mosquito abundance and West Nile virus amplification." Oral presenter. *Georgia Mosquito Control Association Annual Meeting*, October 2012.

TEACHING & MENTORSHIP

Public Health Teaching Faculty, Citizen Science

January 2022

Bard College • Director, Mary Krembs • Public Health Strand Lead, Erin Delker

Transforming Your Research into Teaching (TYRIT)

Summer 2021

Center for the Integration of Research, Teaching and Learning (CIRTL) & University of Colorado, Boulder

Guest Reviewer, EPI 237 Practical Approaches in Global Health

Winter 2021

Professor Steve Luby, Stanford University

Field Mentor, Undergraduate Research Assistant Program

Summer 2018

King Center on Global Development, Stanford University

Teaching Assistant, ENVRES 320 Designing Environmental Research

Winter 2018

Professor Jenna Davis, Stanford University

Field and Lab Manager, Vector Ecology Lab

June 2013 – June 2015

Professors Gonzalo Vazquez-Prokopec and Uriel Kitron, Emory University

Trained seasonal teams of undergraduate and graduate students in collection and laboratory processing of field samples including mosquito trapping, water quality testing, and mosquito identification and pooling

Teaching Assistant, INFO 350 Intro to Geographic Information Systems

Fall 2012, Spring 2013

Dr. Julie Clennon, Emory University Rollins School of Public Health

PROFESSIONAL ACTIVITIES & SERVICE

Reviewer American Journal of Tropical Med	icine and Hygiene $ullet$	The American [Naturalist •	Environmental Research
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• Food and Waterborne Parasitology • Infectious Diseases of Poverty • Philosophical Transactions of the Royal Society of London B Biological Sciences • PLoS Neglected Tropical Diseases • PLoS ONE •

Transactions of the Royal Society of Tropical Medicine and Hygiene

Membership	American Society of Tropical Medicine and Hygiene	2015 – present
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Planetary Health Alliance 2017 – present
Society for Epidemiologic Research 2019-present
American Association of Geographers 2018 – 2019
Ecological Society of America 2019-2020

University University of Colorado Denver Equity Certificate 2021

Stanford Program for Disease Ecology Health and the Environment
Stanford Woods Institute Rising Environmental Leaders Program
2019
Stanford Global Health Student Council
Stanford E-IPER Student Committee
2017-2018
Emory Health Organization for Latin America
2012

TECHNICAL SKILLS

Language English (native speaker) • Spanish (advanced proficiency) • French (intermediate proficiency)

Software Statistical software (R, Stata, SAS, SUDAAN, SPSS)

Geographic information systems (ArcGIS, QGIS)

Data management (REDCap, EpiInfo)

Microsoft Office (Word, Excel, PowerPoint, Access) Bibliographic software (Mendeley, Zotero, EndNote) Collaboration software (GitHub, Slack, Google Drive)

Field Survey design and data collection • Qualitative data collection • Adult mosquito trapping and

identification (gravid, light, aspirator) • Larval mosquito collection and identification • Bird trapping (mist netting) • Mammal trapping (Tomahawk) • Blood sampling (bird jugular,

squirrel femoral)

International Senegal • Mali • Dominican Republic • Costa Rica