Curriculum Vitae

SUSANNE H SOKOLOW

CONTACT

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shsokolow@gmail.com
EMAIL ADDRESS

susannehsokolow.weebly.com
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WEBSITE

EDUCATION

2008 **PHD DISEASE ECOLOGY**
University of California Davis

2003 **DOCTOR OF VERTERINARY MEDICINE**
School of Veterinary Medicine
University of California Davis

1998 **BA BIOLOGY**
University of California Santa Cruz

CURRENT EMPLOYMENT

12/2014 present **RESEARCH SCIENTIST - DISEASE ECOLOGY**
Stanford University

6/2015 present **EXECUTIVE DIRECTOR**
Stanford Program for Disease Ecology Health and the Environment

10/ 2014 present **ACADEMIC STAFF BIOLOGIST**
University of California Santa Barbara

SKILLS

Ecology Research	●●●●●●●●●●	ESRI ArcGIS	●●●●●●○○○○
Veterinary Medicine	●●●●●●●●●●	R programming	●●●●●●○○○○
Project Management	●●●●●●●●○○	Adobe Creative Suite	●●●●●●○○○○
Grant Writing	●●●●●●●●●●	Teaching	●●●●●●●○○○
Statistics	●●●●●●●●○○	Spanish	●●●●●●○○○○

SCIENCE RESEARCH MENTORSHIP POVERTY
MODELING VETERINARY MEDICINE
UPSTREAM ALLIANCE EDUCATION
DISEASE ECOLOGY
STATISTICS SOLUTIONS LEADERSHIP HEALTH
SUSTAINABILITY STUDY DESIGN
PROJECT MANAGEMENT DEVELOPMENT

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PEER REVIEWED PUBLICATIONS
H-INDEX: 8; Average citations/year: 32.55

Published and In press (16 total):

16. **Sokolow, S.H**. (lead and corresponding author), Jones,I.J.*, Cords,O.*, Knight, A.*, Lund, A.*, Wood, C.L, Lafferty, K.D., Hoover, C.M., Collender, P.A., Remais, J., Lopez-Carr, D., Fisk, J.*, Kuris, A.M., De Leo, G.A. in press. *Nearly 400 million people are at higher risk of schistosomiasis because dams block migration of snail-eating river prawns*. **Phil. Trans. R. Soc. B.**

15. **Sokolow, S.H**. (lead and corresponding author), Wood, C.L, Jones,I.J.*, Swartz,S.J.*, Lopez, M.*, Hsieh, M.H., Lafferty, K.D., Kuris, A.M., Rickards, C.G.*, De Leo, G.A. 2016. *Global assessment of schistosomiasis control over the past century shows targeting the snail intermediate host works best.* **PLoSNTD**. 10(7): e0004794.

14. Swartz, S.J.*, DeLeo, G.A., Wood, C.L., **Sokolow, S.H.** (senior and corresponding author). 2015. *Infection with schistosome parasites in snails leads to increased predation by prawns: implications for human schistosomiasis control*. **Journal of Experimental Biology.** 218(24): 3962-3967.

13. Perez-Saez, J., Mari, L., Bertuzzo, E., Casagrandi, R., **Sokolow, S.H.,** De Leo, G.A., Mande, T., Ceperley, N., Froehlich, J.M., Sou, M., Karambiri, H., Yacouba, H., Maiga, A., Gatto, M., Rinaldo, A. 2015. *A theoretical analysis of the geography of schistosomiasis in Burkina Faso highlights the roles of human mobility and water resources development in disease transmission*. **PLoSNTD.** 9(10): e0004127.

12. **Sokolow, S.H. (lead and corresponding author),** Huttinger, E., Jouanard, J., Hsieh, M., Lafferty, K.D., Kuris, A.M., Riveau, G., Senghor, S., Cheikh Thiam, C., N'Diaye, A., Faye, D.S., DeLeo, G. 2015. *Reduced transmission of human schistosomiasis after restoration of a native river prawn that preys on the snail intermediate host*. **Proceedings of the National Academy of Sciences (PNAS)**. 112(31): 9650-9655.

11. Alkalay, A., Rosen, O., **Sokolow, S.H.**, Faye , W.P.F., Faye, D.S., Aflalo E.D., Jouanard, N., Zilberg, D., Huttinger, E. , Sagi, A. 2014. *The prawn,* Macrobrachium vollenhovenii, *in the Senegal River Basin: towards sustainable restocking of all-male populations for fisheries and biological control.* **PloSNTD**. 8(8):e3060.

10. Kuris, A.M., Lafferty, K.D., **Sokolow, S.H**. 2014. *Sapronosis: a distinctive type of infectious agent*. **Trends in Parasitology**. 30: 386-393.[Cover story]

9. **Sokolow, S.H.** (lead and corresponding author), Lafferty, K.D., Kuris, A.M. 2013. *Regulation of laboratory populations of snails* (Biomphalaria *and* Bulinus *spp.) by river prawns,* Macrobrachium spp. (*Decapoda, Palaemonidae): Implications for control of schistosomiasis*. **Acta Tropica**. 132:64-74;

8. Vandergrift, K.J., **Sokolow, S.H.**, Daszak, P., Kilpatrick, A.M. 2010. *Ecology of avian influenza viruses in a changing world*. **Annals of the New York Academy of Sciences**. Volume 1195.

*** indicates student authors under my mentorship**

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Published and In press - continued:

7. Laca, E.A., **Sokolow, S.H.**, Galli, J., Cangiano, C. 2010. *Allometry and spatial scales of foraging in mammalian herbivores*. **Ecology Letters**. 13:3, 311-320.

6. Hosseini, P., **Sokolow, S.H.**, Vandergrift, K.J., Kilpatrick, A.M., Daszak, P. 2010. *Predictive power of air travel and socio-economic data for early pandemic spread.* **PLoS-One**. 5 (9), e12763.

5. **Sokolow, S.H.** 2009 (sole and corresponding author). *Effects of a changing climate on the dynamics of coral infectious disease: a review of the evidence.* **Diseases of Aquatic Organisms.** 87: 5-18.

4. **Sokolow, S.H. (**lead author), Foley, P., Foley, J.E., Hastings, A, Richardson, L. 2009. *Disease dynamics in marine metapopulations: modeling infectious diseases on coral reefs*. **Journal of Applied Ecology**. 46(3): 621-631. [EDITOR'S CHOICE]

3. Plowright, R., **Sokolow, S.H.**, Goreman, M.E., Daszack, P., Foley, J.E. 2008. *Causal inference indisease ecology: investigating ecological drivers of disease emergence*. **Frontiers in Ecology and the Environment**. 6(8): 420-429.

2. Foley, J.E., **Sokolow S.H.**, Girvetz, E.H., Foley, C., Foley, P. 2005. *Spatial epidemiology of yellow band syndrome in Montastraea spp. coral in the eastern Yucatan Caribbean*. **Hydrobiologia**. 548(1): 33-40.

1. **Sokolow, S.H.**, Rand, C., Marks, S.L. Drazenovich, N.L., Kather, E.J., and Foley, J.E. 2005. *Epidemiologic evaluation of diarrhea in dogs in an animal shelter.* **American Journal of Veterinary Research**. 66(6): 1018-1024.

In review and In prep:

Ciddio, M., Mari, L., **Sokolow, S.H.**, De Leo, G.A., Casagrandi, R., Gatto, M. In review. *The spatial spread of schistosomiasis: a multidimensional network model applied to Saint-Louis region, Senegal.* **Advances in Water Resources.**

Mari, L., Ciddio, M., Casagrandi, R., Perez-Saez, J., Bertuzzo, E., Rinaldo, A., **Sokolow, S.H.**, De Leo, G.A., and Gatto, M. In review. *Heterogeneity in schistosomiasis transmission dynamics*. **American Naturalist**

Mari, L., Casagrandi, R., Ciddio, M., **Sokolow, S.H.**, De Leo, G.A., and Gatto, M. In prep. *Uncovering the impact of human mobility on schistosomiasis via mobile phone data*.

Book chapters:

Le, T., **Sokolow, S.H.**, Hamam, O., Fu, C., Hsieh, M. in press. *Pathogenesis of Human Schistosomiasis*. In: **Emerging and Re-emerging Human Infections** (Singh, editor). Wiley and Sons Publishers.

Micheli, F. De Leo, G., Ferretti, F., Honey, K., Kroeker, K. Martone, R.G., McCauley, D.G., O'Leary, J., Rosim, D., **Sokolow, S.H.**, Stock, A., Wood, C. in press. *Ocean Health*. In: **Handbook of Ocean Resources and Management**, (T. Agardy, H. Smith, and J. L. Suarez de Vivero, editors). U.K.: Earthscan.

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MENTORSHIP

Mentored students (19 total)
At Stanford: Lee Marom, Jonas Kemp, Emily Alsentzer, Nick White, Chloe G. Rickards, Diana La, Scott J. Swartz, Melina Lopez, Olivia Cords, Anika Knight, Jonathan Fisk, Isabel J. Jones, Marcus Munoz. At UCSC: Aboudy Ezzeddine. At UCSB: Michelle Lin, Jordan Aman. At University of Michigan: Morgan Rodinelli, Alexis Wait, Austin Rife

HONORS

1998 Highest Honors in the Major, Biology
University of California, Santa Cruz, CA

PROFESSIONAL AFFILIATIONS

2003 California Veterinary Medical Association (CVMA), licensed
2008 Ecological Society of America (ESA), member
2015 Stanford Center for Innovation in Global Health, associate fellow

GRANTS & RESEARCH SUPPORT

Current grants • **Total current support ~ $6.2 million:**

2015-2020 Stanford Institute for Innovation in Developing Economies (SEED):
Dr. Giulio DeLeo (PI); Susanne Sokolow (Executive Director)
The "Program for Disease Ecology, Health, and Development" at Stanford University: Reversing disease-driven poverty traps with win–win ecological solutions
Goals: The formation of an innovative interdisciplinary research group, organized in a "Program for Disease Ecology, Health, and the Environment" based at Stanford.
Role: co-Investigator, primary author, & Executive Director of the Program
$375,000

2015-2020 National Institutes of Health:
Ecology and Evolution of Infectious Diseases Program: Dr. Jason Rohr (PI)
Using community ecology theory to predict the effects of agricultural expansion and intensification on infections of humans and livestock: implications for sustainable agriculture
Goals: Predicting the impact of agricultural expansion and intensification on schistosomiasis transmission in humans and livestock in Senegal.
Role: co-Investigator
$2.4 million

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Current grants • continued:

2014-2017 B&M Gates Foundation - Aquaculture Pour La Sante:
Native prawn fisheries restoration for poverty alleviation and schistosomiasis control in the Senegal River Basin – Proof of Concept
Giulio De Leo (PI)
Goals: Restoration of river prawns—predators of freshwater snails—to village water points in Senegal to reduce the transmission of urinary and intestinal schistosomiasis.
Role: co-Investigator, project manager, and a primary grant author
$1.2 million

2014-2017 Grand Challenges Canada Foundation - Aquaculture Pour La Sante:
Native prawn fisheries restoration for poverty alleviation and schistosomiasis control in the Senegal River Basin – Sustainable Prawn Production
Gilles Riveau (PI)
Goals: Aquaculture of river prawns—predators of freshwater snails— inSenegal.
Role: co-Investigator and a primary grant author
$750,000 CAD

2014-2018 National Science Foundation
CNH: Healthy Ecosystems, Healthy People: The Coupled Human Health and Environmental Dynamics of Schistosomiasis in Sub-Saharan Africa
Dr. Armand Kuris (PI), Dr. Susanne Sokolow (co-PI).
Goals: Testing the hypothesis that - by restoring populations of freshwater prawns and creating a market for them in Senegal - we can: i) provide a protein source to rural communities (via prawn harvest), ii) allow generation of revenue to ensure economic sustainability, iii) reduce schistosomiasis transmission. Win-win-win.
Role: co-PI and a primary grant author
$1.5 million

Previous grants:

2013-2015 Stanford Woods Institute Environmental Venture Projects ($175,000)
Dr. Michael Hsieh (PI) and Dr. Giulio DeLeo (co-PI)
New Solutions for Control of Parasitic Infections:the Case of Schistosomiasis
Role: Co-investigator and a primary grant author

2009-2012 11/09-12/12 NIH K08 – NIAID ($450,000)
Dr. Armand Kuris (mentor), Dr. Kevin Lafferty (co-mentor), Dr. Leslie Real (co-mentor)
Emergence and Biological Control of Schistosomiasis
Role: PI and a primary grant author

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Previous grants - continued:

2004-2005

07/04-06/05 NOAA-NURC, Foley (PI) ($35,000)
Epidemiology of the coral disease white plague on Florida's reefs
Role: Graduate student

2003-2004

4/03-3/04 AAAS Women's International Science Collaboration ($7990)
Foley (PI), Sokolow (Co-PI)
Ecology of Yellow Band Syndrome (YBS) in Caribbean Coral
Role: Graduate student

2002-2004

07/02-08/04 UC MEXUS ($14,988)
Foley (PI)
Disease ecology and epidemiology in the Mesoamerican reef
Role: Graduate student

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PREVIOUS PROFESSIONAL EXPERIENCE

2013-2014 **Post-doctoral Scholar** •Topic: New solutions for global control of parasitic infections: the case of schistosomiasis.
Stanford University, Hopkins Marine Station, Pacific Grove, CA

2009-2012 **Post-doctoral Scholar/NIH Trainee** •Topic: Emergence and biological control of schistosomiasis.
University of California, Santa Barbara,CA

2009 **Research Assistant** •Topic: Ecology, emergence, and global spread of pandemic influenza.
University of California Santa Cruz, CA

2008-2009 **Research Assistant** •Topic: Spatial scales of exploiter-resource dynamics.
University of California Davis, CA

2003-2007 **Graduate Student Researcher** •Topic: Disease ecology in Caribbean coral reefs.
University of California Davis, CA

2007 **Teaching Assistant** • Course: Agronomy 206: Multivariate statistics and modeling.
University of California Davis,CA

2006-2007 **Career Discovery Fellow** • Mentored 12 undergraduate freshmen throughout their participation in a year-long career discovery program. Designed & taught 1-unit course in "Careers in Wildlife."
University of California Davis, CA

2005-2008 **Veterinarian** •Self employed, small animal clinical and emergency medicine.
Sacramento, CA

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