Susanne Sokolow
Senior Research Scientist, Stanford Woods Institute for the Environment

Bio

I am a disease ecologist and veterinarian at Stanford University's Hopkins Marine Station and an Associate Fellow at Stanford's Center for Innovation in Global Health. I am interested in environmental drivers of infectious disease and creative solutions to protect the health of people and the planet. For example, I am working on: 1) biological control of schistosomiasis by restoring a native river prawn that preys on the snail intermediate host, 2) models of disease transmission and how things like connectivity and environmental transmission affect dynamics and control, and 3) designing ecological solutions to disease that mutually benefit human health and the environment.

As Executive Director of Stanford's new Program for Disease Ecology, Health and the Environment, I am helping to build a growing interdisciplinary community at Stanford and beyond interested in discovering and promoting ecological solutions to disease that lead to improved human health and a more sustainable use of the natural environment. As part of this new research program, I founded The Upstream Alliance: a research initiative joining partners across the globe for ecological solutions to reduce the parasitic disease: schistosomiasis, which affects more than 250 million people worldwide.

ACADEMIC APPOINTMENTS
• Senior Research Scientist, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS
• Associate Fellow, Center for Innovation in Global Health, (2015- present)

PROFESSIONAL EDUCATION
• PhD, University of California Davis , Disease ecology (2008)
• DVM, University of California Davis , Clinical veterinary medicine (2003)

Publications

PUBLICATIONS

To Reduce the Global Burden of Human Schistosomiasis, Use 'Old Fashioned' Snail Control  
*TRENDS IN PARASITOLOGY*  
2018; 34 (1): 23–40

Heterogeneity in schistosomiasis transmission dynamics  
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The spatial spread of schistosomiasis: A multidimensional network model applied to Saint-Louis region, Senegal  
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Nearly 400 million people are at higher risk of schistosomiasis because dams block the migration of snail-eating river prawns  
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Big-data-driven modeling unveils country-wide drivers of endemic schistosomiasis  
*Mari, L., Gatto, M., Ciddio, M., Dia, E. D., Sokolow, S. H., De Leo, G. A., Casagrandi, R.*  
*SCIENTIFIC REPORTS*  
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Global Assessment of Schistosomiasis Control Over the Past Century Shows Targeting the Snail Intermediate Host Works Best.  
*PLoS neglected tropical diseases*  
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Infection with schistosome parasites in snails leads to increased predation by prawns: implications for human schistosomiasis control  
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A Theoretical Analysis of the Geography of Schistosomiasis in Burkina Faso Highlights the Roles of Human Mobility and Water Resources Development in Disease Transmission  
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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 OF THE UNITED STATES OF AMERICA*  
2015; 112 (31): 9650-9655

Pathogenesis of Human Schistosomiasis  
*Le, T., Sokolow, S. H., Hamam, O., Fu, C., Hsieh, M. H.*  
*Emerging and Re-emerging Human Infections*  
Wiley and Sons Publishers.2015

OCEAN HEALTH  
*ROUTLEDGE HANDBOOK OF OCEAN RESOURCES AND MANAGEMENT*  
2015: 108–26

Ocean Health  
*Handbook of Ocean Resources and Management*  
• The Prawn Macrobrachium vollenhovenii in the Senegal River Basin: Towards Sustainable Restocking of All-Male Populations for Biological Control of Schistosomiasis. *PLoS neglected tropical diseases*
  2014; 8 (8)

• Sapronosis: a distinctive type of infectious agent. *Trends in parasitology*
  Kuris, A. M., Lafferty, K. D., Sokolow, S. H.
  2014; 30 (8): 386-393

• Regulation of laboratory populations of snails (Biomphalaria and Bulinus spp.) by river prawns, Macrobrachium spp. (Decapoda, Palaemonidae): Implications for control of schistosomiasis. *Acta tropica*
  Sokolow, S. H., Lafferty, K. D., Kuris, A. M.
  2014; 132: 64-74

• Predictive Power of Air Travel and Socio-Economic Data for Early Pandemic Spread *PLoS ONE*
  2010; 5 (9)

• Allometry and spatial scales of foraging in mammalian herbivores *ECOLOGY LETTERS*
  Laca, E. A., Sokolow, S., Galli, J. R., Cangiano, C. A.
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• Ecology of avian influenza viruses in a changing world *YEAR IN ECOLOGY AND CONSERVATION BIOLOGY 2010*
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• Effects of a changing climate on the dynamics of coral infectious disease: a review of the evidence *DISEASES OF AQUATIC ORGANISMS*
  Sokolow, S.
  2009; 87 (1-2): 5-18

• Editor’s choice: Disease dynamics in marine metapopulations: modelling infectious diseases on coral reefs *JOURNAL OF APPLIED ECOLOGY*
  Sokolow, S. H., Foley, P., Foley, J. E., Hastings, A., Richardson, L. L.
  2009; 46 (3): 621-631

• Causal inference in disease ecology: investigating ecological drivers of disease emergence *FRONTIERS IN ECOLOGY AND THE ENVIRONMENT*
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• Spatial epidemiology of Caribbean yellow band syndrome in Montastrea spp. coral in the eastern Yucatan, Mexico *HYDROBIOLOGIA*
  Foley, J. E., Sokolow, S. H., Girvetz, E., Foley, C. W., Foley, P.
  2005; 548: 33-40

• Epidemiologic evaluation of diarrhea in dogs in an animal shelter *AMERICAN JOURNAL OF VETERINARY RESEARCH*
  Sokolow, S. H., Rand, C., Marks, S. L., Drazenovich, N. L., Kather, E. J., Foley, J. E.
  2005; 66 (6): 1018-1024