



Michael von Fricken, PhD

Assistant Professor, Department of Global and Community Health
Research Associate, Smithsonian's Global Health Program

Education

PhD, Environmental and Global Health, University of Florida

Key Interests

Infectious Diseases | Epidemiology | Tick and Mosquito Vectors | Global Health | Genomics
| Molecular Biology | Parasitology | Disease Ecology

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SELECT PUBLICATIONS

- › M. E. von Fricken *et al.*, Estimated seroprevalence of *Anaplasma* spp. and spotted fever group (SFG) *Rickettsia* exposure among herders and livestock in Mongolia. *Acta Trop* 177, 179-185 (2018).
- › T. A. Weppelmann *et al.*, Elimination or more accurate estimation? Investigation of trends in malaria diagnoses in the Ouest Department of Haiti from 2008 to 2017. *PLoS One* 13(6), e0198070 (2018).
- › T. A. Weppelmann *et al.*, A tale of two Flaviviruses: a seroepidemiological study of dengue virus and West Nile virus transmission in the Ouest and Sud-Est Departments of Haiti. *Am J Trop Med Hyg.* 96(1), 135-140 (2017).

Research Focus

Over 75% of emerging infections are zoonotic with 17% transmitted by arthropods. I investigate emerging vector borne diseases in Haiti, Kenya, Mongolia, Equatorial Guinea and China. I specialize in *Rickettsia*, *Borrelia*, and *Anaplasma* bacterial infections transmitted by ticks and have experience conducting large scale surveillance studies that focus on high risk populations. I am a firm believer in the "One Health" approach that examines and synthesizes complex disease processes from human, animal, and environmental perspectives.

Current Projects

- "Vector Mapping of Ticks and Tick-Borne Pathogens of Mongolia" - Funded by the U.S. Department of Defense (DoD) to investigate emerging tick-borne diseases in Mongolia. This study will address key knowledge gaps in tick biology, identification and the distribution of high threat infectious agents in Mongolia, while providing DoD access to reference specimens and pathogen isolates for future outbreak response scenarios.
- "A Pan-Regional Vector Biosurveillance Network to Detect, Characterize, and Predict Endemic and Emergent Zoonosis in East and Central Africa" - Funded by DoD, where my role is to assist the National Risk Management Center (NRMC) in discovering and monitoring high threat pathogens in Kenya.
- "Bioko Island Malaria Control Program" - My role is to advise and consult ongoing malaria elimination efforts in Equatorial Guinea, working with Medical Care Development International.