Biographical Sketch

Name: Michael H Reiskind,

Current Title and Appointment: Assistant Professor, Department of Entomology, North Carolina State University.

Previous Education and Professional Appointments:

Institution	Location	Degree/position	Years
Amherst College	Amherst, MA	AB, Biology	1991-1995
University of Michigan	Ann Arbor, MI	MPH, Epidemiology	1997-1999
University of Michigan	Ann Arbor, MI	PhD, Biology	1999-2005
Florida Medical Entomology Laboratory	Vero Beach, FL	Post-doctoral training, Mosquito Ecology	2005-2008
Oklahoma State University	Stillwater, OK	Assistant Professor	2008-2012
North Carolina State University	Raleigh, NC	Assistant Professor	2012-present

Personal Statement:

My professional academic career began when I was an undergraduate studying the evolution of infectious diseases with Dr. Paul Ewald at Amherst College. We used the nuclear polyhedrosis virus of the gypsy moth, *Lymantria dispar* as a model system to test hypotheses of how the timing of transmission affects the severity of infection. We found that artificially passaging the virus early in infection would select for viruses that caused more severe pathology in the moth caterpillars, relative to viruses passaged late in the infection (Cooper et al. 2002). This experience inspired me to pursue an academic career focused on infectious diseases. A natural next step was to study human diseases, and I received an MPH in 1999, studying the epidemiology of dengue fever in Latin America under the guidance of Dr. Mark Wilson (Reiskind et al. 2001). I became fascinated by the complexities in vector-borne disease, and the central role of arthropod ecology in driving epidemiological patterns. I focused on the ecology of mosquitoes and mosquito-borne viruses, studying the behavioral, population, and community ecology of the *Culex* mosquitoes, the major vectors of West Nile virus (Reiskind and Wilson 2004, 2008). I continued to study how mosquito ecology interacts with virus transmission for my post-doctoral research with Dr. L. Philip Lounibos, but shifted to the anthroponotic dengue and chikungunya viruses, which use *Aedes* mosquitoes as vectors. I broadened my research

approaches to include landscape ecology and virology (e.g. Alto et al. 2008, Reiskind et al. 2008, Reiskind and Lounibos 2013). I have continued to study how mosquito ecology affects disease transmission in my own research programs at Oklahoma State University (till 2012) and North Carolina State University (present), where I have recently added population genomics to my research tool box.

Representative Publications (11 out of 31):

1. Reiskind, M. H., K. J. Baisley, C. Calampa, T. W. Sharp, D. M. Watts, and M. L. Wilson. 2001. Epidemiological and ecological characteristics of past dengue virus infection in Santa Clara, Peru. Tropical Medicine & International Health 6:212-218.
2. Cooper, V. S., M. H. Reiskind, J. A. Miller, K. A. Shelton, B. A. Walther, J. S. Elkinton, and P. W. Ewald. 2002. Timing of transmission and the evolution of virulence of an insect virus. Proceedings of the Royal Society of London Series B-Biological Sciences 269:1161-1165.
3. Reiskind, M. H., and M. L. Wilson. 2004. *Culex restuans* (Diptera: Culicidae) oviposition behavior determined by larval habitat quality and quantity in southeastern Michigan. Journal of Medical Entomology 41(2):179-186.
4. Reiskind, M.H., Pesko, K., Westbrook, C.J. and C.N. Mores. 2008. Susceptibility of Florida mosquitoes to chikungunya virus. American Journal of Tropical Medicine and Hygiene 78(3): 422-425.
5. Reiskind, M.H. and M.L. Wilson. 2008. Interspecific competition between larval *Culex restuans* Theobald and *Culex pipiens* L. (Diptera: Culicidae) in Michigan. Journal of Medical Entomology 45(1): 20-27.
6. Alto, B.W., Lounibos, L.P., Mores, C.N. and Reiskind, M.H. 2008. Larval competition alters susceptibility of adult *Aedes* mosquitoes to dengue infection. Proceedings of the Royal Society Biological Sciences 275: 463-471.
7. Reiskind, M.H. and Lounibos, L.P. 2009. Effects of intraspecific larval competition on adult longevity in the mosquitoes *Aedes aegypti* and *Aedes albopictus*. Medical and Veterinary Entomology 23: 62-68. Awarded "Best Paper in Medical and Veterinary Entomology, 2009-2010" from the Royal Society of Entomology, UK.
8. Westbrook, C.J., Reiskind, M.H., Green, K., and Lounibos, L.P. 2010. Larval environmental temperature and the susceptibility of *Aedes albopictus* to chikungunya virus. Vector-borne and Zoonotic Diseases 10 (3): 241-247.
9. Reiskind, M.H. and A.A. Zarrabi. 2012. Is bigger really bigger? Differential Responses to Temperature in Measures of Body Size of the Mosquito, *Aedes albopictus*. Journal of Insect Physiology, 58 (7): 911-917.
10. Reiskind, M.H. and L.P. Lounibos, 2013. Spatial and temporal patterns of abundance of *Aedes aegypti* L. (*Stegomyia aegypti*) and *Aedes albopictus* (Skuse)[*Stegomyia albopictus* (Skuse)] in southern Florida. Medical and Veterinary Entomology 27 (4): 421-429.
11. Paras, K.L., O'Brien, V.A. and M.H. Reiskind. 2014. Comparison of the vector potential of different mosquito species for the transmission of heartworm, *Dirofilaria immitis*, in

rural and urban areas in and surrounding Stillwater, Oklahoma, USA. Medical and Veterinary Entomology 28 (S1): 60-67. Selected for inclusion in special 25th Anniversary Issue of Medical and Veterinary Entomology.

Other Professional Activities:

1. My lab and I have an active outreach component of our scientific endeavor. This includes public seminars at a variety of venues, writing material to be used in K-12 course work, lab updates on the web, and engagement with the media on subjects related to our research.
2. I have developed and taught a diverse curriculum of entomology and epidemiology related courses. These include a non-majors course on how arthropods have affected human health and history, in both a large, live lecture format and a completely asynchronous, on-line format. I have also developed and taught undergraduate courses in forensic entomology and livestock entomology and graduate level courses in public health entomology.
3. I have led professional outreach programs in general vector biology, mosquito identification and mosquito control targeting pest control operators and environmental health professionals.
4. I am an active member of several professional societies. I have recently served as an editorial board member of the Journal of Medical Entomology (2008-2012) and regularly review manuscripts for a variety of scientific journals in entomology, tropical diseases, and ecology. I have organized and participated in several symposia at national and regional meetings.