



Michael Reiskind



Assistant Professor,
Department of Entomology,
CALs, NCSU

AB, Amherst College
MPH, University of Michigan
PhD, University of Michigan

Address:

Department of Entomology
North Carolina State University
Box 7613
Raleigh, NC 27695

Phone: 919-515-0719

Email: mhreiski@ncsu.edu

www.vectorecology.org

Vector Ecology in a Dynamic World

Research emphasis:

Our research focuses on the interaction between arthropod vectors, the pathogens they transmit, other organisms, and the environment. Within these complex disease systems, we focus on our efforts at three levels of ecological organization: the landscape, the community, and the individual. We currently have active research programs focusing on two pathogens: the *Aedes* mosquito/dengue/chikungunya system and the multi-vector dog heartworm system. For both systems we start with a large scale (landscape or higher) approach, but with questions that scale down to organism-organism interactions (community and population ecology) and organism-environment interactions (physiological and behavioral ecology).

We also have an active outreach and teaching program. Outreach activities include lessons plans for various levels in k-12 education; DIY citizen science kits that provide data for a population genetic study; and cell-phone applications that allow time- and geo-stamped collection of mosquito bite data. Our teaching endeavors include graduate and non-major undergraduate course offerings in medical entomology.

Selected publications

- Reiskind, MH and Janairo, MS. 2015. Late instar behavior of *Aedes aegypti* (Diptera: Culicidae) larvae in different nutritive and thermal environments. *J Med Entomol*. Doi: <http://dx.doi.org/10.1093/jme/tjv088>.
- Paras KL, O'Brien VA, Reiskind . 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, U.S.A. *Med Vet Entomol. Suppl* 1:60-7. doi: 10.1111/mve.12069. Epub 2014 Jun 5. PubMed PMID: 24898348.
- Alto BW, Lounibos LP, Mores CN, Reiskind MH. 2008. Larval competition alters susceptibility of adult *Aedes* mosquitoes to dengue infection. *Proc Biol Sci*. 275(1633):463-71. PubMed PMID: 18077250; PMCID: PMC2289994.

Application:

- Vector-borne pathogens
- Landscape Ecology
- Mosquito ecology
- Population genetics

Collaboration potential:

- Empirical work in vector-borne disease systems
- Large-scale, landscape level studies
- Ecosystem services
- Human well-being