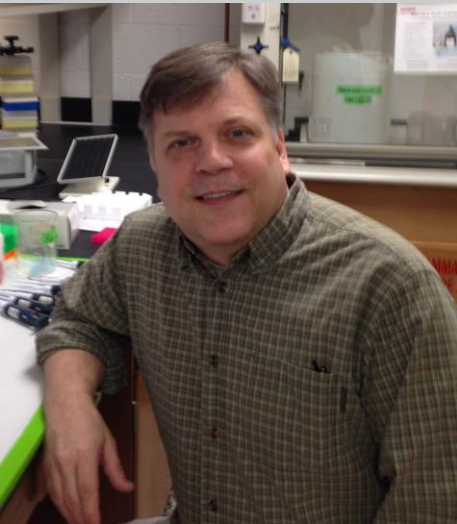




Brian M. Wiegmann



### Title:

### Research emphasis:

Wiegmann's research focuses on the evolutionary history and biology of flies and other insects using comparative genomics and genetic data analysis. Flies (Diptera) include many diverse blood-feeding species that are important vectors of disease to humans, pets, and livestock. His current work uses transcriptomes to understand the history of major events in fly evolution. New genomic data provide insight into the variability and evolution of genes in key functional groups. A major goal of Wiegmann's research program is to reconstruct the evolutionary 'tree of life' for all fly species, one of the largest groups of metazoan life on earth.

### Selected publications:

Wiegmann, BM, *et al.* 2011. Episodic radiations in the fly tree of life. *Proceedings of the National Academy of Sciences, USA*. 108(14): 5690-5695.

Misof, B., S. Liu, K. Meusemann, ... Wiegmann, B. M., *et al.* 2014. Phylogenomics resolves the timing and pattern of insect evolution. *Science* 346: 763-767.

Haseyama, KL, BM Wiegmann, EAB Almeida, and CJB. de Carvalho. 2015. Say goodbye to tribes in the new house fly classification: a molecular phylogenetic analysis and an updated biogeographical narrative for the Muscidae (Diptera). *Molecular Phylogenetics & Evolution*, doi: 10.1016/j.ympev.2015.04.006.

### Application:

- Phylogenetic analyses
- Evolutionary comparative methods
- Gene discovery
- Vector biology

### Collaboration potential:

- Genetic data harvests for phylogeography of disease vectors or pathogens
- Pathogen and vector identification
- Evolutionary comparative analysis
- Comparative genomics

William Neal Reynolds Professor,  
of Entomology

Associate Director, TriCEM,  
Triangle Center for Evolutionary  
Medicine

CMI Member, Emerging Infectious  
Diseases

B.Sc. Loyola University of  
Maryland, Baltimore, MD

M.Sc. University of Maryland,  
College Park MD

Ph.D. University of Maryland,  
College Park MD

### Address:

Department of Entomology and  
Plant Pathology

North Carolina State University  
College of Agriculture and Life  
Sciences

Raleigh NC 27695-7613 **Phone:**  
919-515-1653

**Email:** bwiegman@ncsu.edu