

# Tad Dallas

## about

Postdoctoral researcher  
University of California  
@ Davis

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taddallas.github.io  
 taddallas

## programming

### Proficient

R  
SQL  
Matlab/Octave

### Familiar

Julia  
Python  
Java  
C++

### Markup

$\LaTeX$   
Markdown  
HTML/XML/XPath

### Version control

Git



## experience

2016 -	Postdoctoral fellow <i>Advised by Alan Hastings</i>	UC Davis
2015	Distributed <i>R</i> Analytics Intern <i>Software development for analysis of large data</i>	HP Vertica - Big Data Platform Dev Team
2010-2011	Biological Science Technician <i>Subtropical Plant Pathology Lab</i>	USDA - Agricultural Research Service
2008	Mathematical Biology Program <i>Mathematical estimation of host range using mark-recapture data</i>	NSF Research Experience for Undergraduates (REU)

## education

2011 - 2016	Ph.D. Ecology <i>Advised by John Drake</i>	Odum School of Ecology
2009 - 2010	M.S. Biology <i>Ecology of small mammal-tick interactions</i> advised by Stephanie Foré	Truman State University
2005 - 2009	B.S. Biology Majoring in Biology <i>Minor in Mathematical Biology</i>	Truman State University

## software

metacom	Analysis of metacommunity structure	CRAN and 	R package
helminthR	Programmatically access the a global host-helminth database		R package

## publications

### in review

- Dallas, T., A. Kramer, M. Zokan, and J.M. Drake. Ordination obscures the influence of environment on plankton metacommunity structure. *Limnology and Oceanography Letters*
- Cleveland, C.A., T. Dallas, S. Vigil, D.G. Mead, J.L. Corn, and A.W. Park. 201x. Metacommunity ecology links environmental drivers to *Culicoides* communities and hemorrhagic disease reports in the southeastern United States. *Oecologia*
- Dallas, T., J. Drake, and M. Krkosek. Pathogen invasion thresholds in a *Daphnia*-microparasite system. *American Naturalist*

### published

- Stephens, P., Altizer, S., Smith, K., Aguirre, A., Brown, J., Budischak, S., Byers, J., Dallas, T., Davies, J., Drake, J., Ezenwa, V., Farrell, M., Gittleman, J., Han, B., Huang, S., Hutchinson, R., Johnson, P., Nunn, C., Onstad, D., Park, A., Vazquez-Prokopec, G., Schmidt, J., and Poulin, R. 2016. The Macroecology of Infectious Diseases: A New Perspective on Global-scale Drivers of Pathogen Distributions and Impacts. (in press: *Ecology Letters*) doi: 10.1111/ele.12644
- 📦 Dallas, T. 2016. **helminthR**: An R interface to the London Natural History Museum's Host-Parasite Database. *Ecography* 39(4): 391-393. doi: 10.1111/ecog.02131 </>
- Dallas, T., R. Hall, and J. Drake. 2016. Competition-mediated feedbacks in experimental multi-species epizootics. *Ecology* 97(3):661-670. doi:10.1890/15-0305.1 </>
- 📦 Dallas, T., M. Holtackers, and J. Drake. 2016. Costs of resistance and infection by a generalist pathogen. *Ecology and Evolution* doi: 10.1002/ece3.1889 </>
- 📦 Dallas, T. and E. Cornelius. 2015. Co-extinction in a host-parasite network: identifying key hosts for network stability. *Nature Scientific Reports* doi: 10.1038/srep13185
- Park, A., C. Cleveland, T. Dallas, and J. Corn. 2015. Vector species richness increases hemorrhagic disease prevalence through functional diversity modulating the duration of seasonal transmission. *Parasitology* 10: 1-6. doi: 10.1017/S0031182015000578
- Presley S.J., T. Dallas, B.T. Klingbeil, M.R. Willig. 2015. Phylogenetic signals in host-parasite associations for Neotropical bats and Nearctic desert rodents. *Biological Journal of the Linnean Society* </>
- 📦 Dallas, T. and J.M. Drake 2014. Relative importance of environmental, geographic, and spatial variables on zooplankton metacommunities. *Ecosphere* 5(9): art104 doi:10.1890/ES14-00071.1.
- 📦 Dallas, T. 2014. **metacom**: an R package for the analysis of metacommunity structure. *Ecography* 37(4):402-405. doi:10.1111/j.1600-0587.2013.00695.x
- Dallas, T. & S. Presley. 2014. Relative importance of host environment, transmission potential, and host phylogeny to the structure of parasite metacommunities. *Oikos* 123: 866-874. doi:10.1111/oik.00707
- 📦 Dallas, T. & J.M. Drake 2014. Nitrate enrichment alters a *Daphnia*-microparasite interaction through multiple pathways. *Ecology and Evolution* 4(3):243-250. doi: 10.1002/ece3.925
- Kim, H.J., J.E. Cavanaugh, T. Dallas, & S. Foré. 2013. Model selection criteria for overdispersed data and their application to the characterization of a host-parasite relationship. *Environmental and Ecological Statistics* doi:10.1007/s10651-013-0257-0
- 📦 Dallas, T. 2013. **metacom**: Analysis of the 'Elements of Metacommunity Structure'. R package version 1.2. <http://CRAN.R-project.org/package=metacom>
- Dallas, T., S. Foré. 2013. Chemical attraction of *Dermacentor variabilis* ticks parasitic to *Peromyscus leucopus* based on host body mass and sex. *Experimental and Applied Acarology* 61(2): 243-250. doi:10.1007/s10493-013-9690-x
- Dallas, T., S. Foré, & H.J. Kim. 2012. Modeling the influence of *Peromyscus leucopus* body mass, sex and habitat on immature *Dermacentor variabilis* burdens. *Journal of Vector Ecology*. 37(2):338-341.doi:10.1111/j.1948-7134.2012.00236.x
- Dallas, T., S. Foré & H.J. Kim. 2010. Factors influencing immature *Dermacentor variabilis* load on the white-footed mouse (*Peromyscus leucopus*). *Technical Report, Truman State University*.

## professional service

I have served as a reviewer for the following journals:

- Ecography
- Ecology
- Ecology and Evolution
- Ecological Complexity
- Functional Ecology
- Global Ecology and Biogeography
- Journal of Animal Ecology
- Journal of Vector Ecology
- Landscape Ecology
- Methods in Ecology and Evolution
- Oecologia
- Oikos
- Philosophical Transactions B
- Proceedings of the Royal Society B

I have served as webmaster for the following organizations:

- Ecological Society of America - Disease Ecology section
- Macroecology of Infectious Disease - NSF Research Coordination Network
- Computational Ecology and Epidemiology Study Group - UGA
- Graduate Student Association - Odum School of Ecology

## mentoring

2013	Young Dawgs Program	Mathieu Holtackers
2014	Population Biology of Infectious Disease REU	Trianna Humphries

## awards

2014	Best student paper award - Odum School of Ecology	Applied category
2014	Best student paper award - Odum School of Ecology	Theoretical category
2014	Presentation award (4 <sup>th</sup> place)	Odum School Graduate Student Symposium
2012 - 2014	Odum School small grant recipient	Fully funded for 3 years
2011	Love of Learning award	Phi Kappa Phi

## professional affiliations

2016 -	Association for the Sciences of Limnology and Oceanography	
2014 -	Society for Conservation Biology member	Georgia chapter
2012 -	Ecological Society of America member	Aquatic Ecology and Disease Ecology sections
2010 -	Phi Kappa Phi member	Academic honor fraternity