

Biographical Sketch Tracy Anne Heath

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A. PROFESSIONAL PREPARATION

Boston University	Boston, MA	Biology	B.A., 2000
University of Texas	Austin, TX	Ecology, Evolution, & Behavior	Ph.D., 2008
University of Kansas	Lawrence, KS	NSF Biological Informatics Fellow	Postdoc, 2008–10
University of California	Berkeley, CA	Integrative Biology	Postdoc, 2010–14
University of Kansas	Lawrence, KS	Ecology & Evolutionary Biology	Postdoc, 2013–14

B. APPOINTMENTS

2015 – ... Assistant Professor, Iowa State University; Dept. of Ecology, Evolution, & Organismal Biology.

C-1. TEN RELEVANT PRODUCTS

Software: *RevBayes v1.0*. Höhna, S., B. Boussau, **T.A. Heath**, M.J. Landis, N. Lartillot, J.P. Huelsenbeck, and F. Ronquist. Bayesian phylogenetic inference using probabilistic graphical models and an interpreted language. (<http://revbayes.github.io/about.html>)

Software: *DPPDiv* – **Heath, T.A.** Bayesian estimation of species divergence times under a Dirichlet process prior. (<https://github.com/trayc7/FDPPDIV>).

Heath, T.A., J.P. Huelsenbeck, and T. Stadler. “The fossilized birth-death process for coherent calibration of divergence-time estimates.” *Proceedings of the National Academy of Sciences*, 111(29):E2957–E2966, 2014.

Heath, T.A. and B.R. Moore. “Bayesian inference of species divergence times.” In: *Bayesian Phylogenetics: Methods, Algorithms, and Applications*, Chen, M.-H., L. Kuo, P.O. Lewis (editors), Chapman & Hall/CRC, 2014.

Cook, J.A., S.V. Edwards, E.A. Lacey, R.P. Guralnick, P.S. Soltis, D.E. Soltis, C.K. Welch, K.C. Bell, K.E. Galbreath, C. Himes, J.M. Allen, **T.A. Heath**, A.C. Carnaval, K.L. Cooper, M. Liu, J. Hanken and S. Ickert-Bond. “Natural history collections as emerging resources for innovative education.” *BioScience*, 64:725–734, 2014.

Darriba, D., A. Aberer, T. Flouri, **T.A. Heath**, F. Izquierdo-Carrasco, and A. Stamatakis. “Boosting the performance of Bayesian divergence time estimation with the Phylogenetic Likelihood Library.” *IPDPSW, 2013 IEEE 27th International*, Boston, USA, pp. 539–548, 2013.

Heath, T.A. “A hierarchical Bayesian model for calibrating estimates of species divergence times.” *Systematic Biology*, 61:793–809, 2012.

Heath, T.A., M.T. Holder, and J.P. Huelsenbeck. “A Dirichlet process prior for estimating lineage-specific substitution rates.” *Molecular Biology and Evolution*, 29:939–255, 2012.

Höhna, S., **T.A. Heath**, B. Boussau, M.J. Landis, F. Ronquist, and J.P. Huelsenbeck. “Probabilistic graphical model representation in phylogenetics.” *Systematic Biology*, 63:753–771, 2014.

Heath, T.A., S.M. Hedtke, and D.M. Hillis. “Taxon sampling and the accuracy of phylogenetic analyses” *Journal of Systematics and Evolution*, 46:239–257, 2008.

D. SYNERGISTIC ACTIVITIES

COURSE FACULTY

Heath is involved in several workshops on applied phylogenetics and molecular evolution each year, primarily teaching Bayesian approaches for divergence-time estimation. All tutorials and lectures are made available online: phyloworks.org/resources/workshops.html.

NESCent Academy Course: Phylogenetic Inference using RevBayes (2014; organizer and instructor); Wellcome Trust-EMBL-EBI-EMBO Advanced Course on Computational Molecular Evolution (2013–2015); Bodega Applied Phylogenetics Workshop (2011–2015); Workshop on Molecular Evolution at MBL Woods Hole, MA (2012–2015); Workshop on Molecular Evolution at Český Krumlov, Czech Republic (2013)

OUTREACH & SERVICE

Evolution 2015 SSB Symposium Organizer – “Breaking Barriers: Empirical, Theoretical, and Gender Issues in Phylogenetics” with C. Moreau, B. O’Meara, & S. Perkins (Brazil, June 2015).

Professional Development Session on Computational Biology at SACNAS 2014, Session Chair and Organizer (crackingthebiocode.github.io; 2014).

Mentor for the Undergraduate Diversity at SSE/SSB Program (2011, 2012, 2014).

Girls Who Code Summer Program (speaker, 2013).

Society of Systematic Biologists elected council member (2013–2015).

iEvoBio Organizing Committee (2013). The Women in Science and Engineering Residential Program Seminar, UC–Berkeley (speaker, 2011).

Blog contributor: <http://treethinkers.org/blog>

PARTICIPANT

AIM-UP!–Advancing Integration of Museums into Undergraduate Programs (NSF RCN-UBE DEB-0956129; 2013–2015).

BEAST Developers NESCent Working Group (2013).

France-Berkeley Fund Workshop on Integrating Molecular Phylogenies and the Fossil Record (2013)

AdaCamp Unconference for Women in Open Technology (2013)

NESCent Phylotastic! Hackathon (June 2012)

REVIEWING

Editorial board member for *Systematic Biology* (2011–present).

Journal reviewer for: *Bioinformatics*, *BMC Evolutionary Biology*, *Ecology Letters*, *Evolution*, *Gene*, *Journal of Systematics & Evolution*, *Molecular Biology & Evolution*, *Proceedings B*, *Systematic Biology*, *Trends in Ecology & Evolution*.

Award reviewer for: The Graduate Women in Science 2012 National Fellowships Program, The Society of Systematic Biologists Graduate Student Research Award Competition (2012, 2014).

SOCIETY MEMBERSHIP

Society of Systematic Biologists, Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Society of Vertebrate Paleontology