

Randi H Griffin, PhD

- Recent PhD with 9 years experience translating data into insights
- R expert, comfortable in MySQL, learning Python
- Strong background in social and biological sciences
- Team player, creative problem solver, clear communicator

EDUCATION

Duke University, NC, PhD in Biological Anthropology — graduated May 2018

Instructor for data analysis workshops for faculty and grad students, leading modules on data cleaning, visualization, and modeling in R

Harvard University, MA, BA in Human Evolutionary Biology, cum laude — graduated May 2010

Cambridge public schools tutor, 4 years varsity women's ice hockey

PROJECTS ON GITHUB

PhD dissertation on skull shape evolution

Extracted shape data from CT scans of primate skulls and modeled skull shape evolution in 3D using multivariate GLMMs, cluster analysis, and multivariate ordination. <https://github.com/rgriff23/Dissertation>

Scraping and analyzing data Olympic history

Scraped historical data on 135k Olympians from www.sports-reference.com and analyzed historical trends in the number of athletes and events, participation of women, geographic representation, and athlete characteristics. https://github.com/rgriff23/Olympic_history

Twitterstorm analysis with `twitter`

Compiled data on 4.5k users and 5k tweets, used social network analysis and sentiment analysis to characterize the storm. https://github.com/rgriff23/Katie_Hinde_Twitter_storm_text_analysis

Spatial ecology of mosquito communities

Analyzed spatial distribution of mosquitoes in NC using GLMMs and multivariate ordination. https://github.com/rgriff23/Mosquito_ecology

Eco-epidemiology of tapeworms in monkeys

Analyzed longitudinal data to assess the distribution and health impacts of tapeworms in monkeys using survival analysis. https://github.com/rgriff23/Gelada_parasites

R package 'btw' for Bayesian evolutionary models

Authored package to run executable program BayesTraits from R using OS commands. Functions import and process BayesTraits output into convenient formats for further analysis. <https://github.com/rgriff23/btw>

Simulation studies to evaluate published methods

Assessed the performance of two recently published statistical methods in evolutionary biology.

https://github.com/rgriff23/Evaluating_IE
https://github.com/rgriff23/Evaluating_mvBM

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SKILLS

Coding: Proficient in R/R Markdown & git/GitHub; familiar with Python, MySQL, HTML/CSS, UNIX, Perl

Data analysis- Generalized linear mixed effects models, GIS, network analysis, survival models, multivariate ordination, text analysis, agent-based models, Bayesian methods

Data collection- Web scraping, mining social media (e.g., Twitter)

HONORS & AWARDS

Kaggle weekly Kernel Awards winner for analysis of survey data, June 15, 2018 (\$1000).
<https://www.kaggle.com/heesoo37/stack-overflow-2018-survey-age-gender-sexuality/notebook>

National Science Foundation Graduate Research Fellowship, 2015, 12% applicant success rate

James B. Duke Fellowship, 2013, nominated and awarded by faculty

PERSONAL INTERESTS

STEM outreach, Science coach for Duke's BOOST Program aimed at encouraging underrepresented groups to pursue careers in STEM

Youth ice hockey coach, 2010-16, Level 4 certified USA Hockey coach

South Korean Women's Ice Hockey National Team, 2015-pres, 2018 Winter Olympics

PUBLICATION HISTORY

1. Schneider-Crease, I.A., **Griffin, R.H.**, Gomery, M.A., Bergman, T.J., and J.C. Beehner. 2017. High mortality associated with parasitism in geladas (*Theropithecus gelada*) in the Simien Mountains National Park, Ethiopia. *American Journal of Primatology*, 79(9).
2. Schneider-Crease, I.A., **Griffin, R.H.**, Dorny, P., Noh, J.C., Handali, S., Chastain, H.M., Wilkins, P.P., Nunn, C.L., Snyder-Mackler, N., Beehner, J.C., and T.J. Bergman. 2017. Identifying wildlife reservoirs of neglected taeniid tapeworms: non-invasive diagnosis of endemic *Taenia serialis* infection in wild primates. *PLOS Neglected Tropical Diseases*, 11(7): p.e0005709.
3. **Griffin, R.H.**, and G.S. Yapunich. 2017. A critical comment on the ‘multiple variance Brownian motion’ model of Smaers et al. (2016). *Biological Journal of the Linnean Society*, 121(1): 223-228.
4. Reiskind, M., **Griffin, R.H.**, Janairo, M.S., and K.A. Hopperstad. 2016. Mosquitoes of Field and Forest: The Scale of Habitat Segregation in a Diverse Mosquito Assemblage. *Medical and Veterinary Entomology*, 31(1): 44-54.
5. **Griffin, R.H.**, and G.S. Yapuncich. 2015. The Independent Evolution method is not a viable phylogenetic comparative method. *PLoS ONE* 10(12):e0144147.
6. Coburn, R.A., **Griffin, R.H.**, & S.D. Smith. 2015. Genetic basis for a rare floral mutant in an Andean species of Solanaceae. *American Journal of Botany* 102(2):264-272.
7. Young, H., **Griffin, R.**, Wood, C.L., and Nunn, C.L. 2013. Does habitat disturbance increase infectious disease risk for primates? *Ecology Letters*, 16(5): 656-663.
8. Cooper, N., **Griffin, R.**, Franz, M., Omotayo, M., and Nunn, C.L. 2012. Phylogenetic host specificity and understanding parasite sharing in primates. *Ecology Letters* 15(12): 1370-77.
9. **Griffin, R.H.**, Matthews, L.J., and Nunn, C.L. 2012. Evolutionary Disequilibrium and Activity Period in Primates: A Bayesian Phylogenetic Approach. *American Journal of Physical Anthropology* 147:409-416.
10. **Griffin, R.H.** and Nunn, C.L. 2011. Community structure and the spread of infectious disease in primate social networks. *Evolutionary Ecology* 26(4):779-800.