Andrew Magee

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Education

2016–present **PhD**, *UW Seattle*, Biology, Expected graduation June 2021.

2011–2015 **BS with Highest Honors**, *UC Davis*, Animal Biology.

Publications

Referreed Publications

- Faulkner JF, **Magee AF**, Shapiro B., Minin VN. Horseshoe-based Bayesian nonparametric estimation of effective population size trajectories. *Biometrics* (2020). https://doi.org/10.1111/biom.13276
- Fourment M, **Magee AF**, Whidden C, Bilge A, Matsen FA, Minin VN. 19 dubious ways to compute the marginal likelihood of a phylogenetic tree topology. *Systematic Biology* 69 (2), 209-220. https://doi.org/10.1093/sysbio/syz046
- Whidden C, Claywell B, Fisher T, **Magee AF**, Fourment M, Matsen FA. Systematic exploration of the high likelihood density set of phylogenetic trees. *Systematic Biology* 69 (2), 280-293. https://doi.org/10.1093/sysbio/syz047
- **Magee AF**, May MR, Moore BR. The Dawn of Open Access to Phylogenetic Data. *PLoS ONE* 9(10): e110268. https://doi:10.1371/journal.pone.0110268

Accepted papers

- **Magee AF**, Höhna S, Vasylyeva TI, Leaché AD, Minin VN. Locally adaptive Bayesian birth-death model successfully detects slow and rapid rate shifts. Accepted at *PLoS Computational Biology*. bioRxiv:853960v2

Non-refereed Publications

- Faulkner JF, **Magee AF**, Shapiro B., Minin VN. Rejoinder for discussion on "Horseshoe-based Bayesian nonparametric estimation of effective population size trajectories." *Biometrics* (2020). https://doi.org/10.1111/biom.13273
- **Magee AF**. The Makings of a Meta-Analysis, or: How I Wasted Dozens of Hours Obtaining Publicly Available Data. Essay for DNAdigest

Conference Presentations and Posters

- Flexible birth-death tree models with Markov random fields. *Poster* presented at: WNAR IBS Conference 2019. June 2019; Portland, Oregon.
- Horseshoes and hand grenades: shrinking models with exploding numbers of parameters using horseshoe priors. *Talk* presented at: Evolution 2017. June 2017; Portland, Oregon.
- Diversity-dependent diversification: fact or artifact? *Poster* presented at: Evolution 2016. June 2016; Austin, Texas.
- A meta-analysis exploring the prevalence of density-dependent diversification. *Poster* presented at: New Frontiers in Botany: Botany 2014. July 2014; Boise, Idaho.
- A meta-analysis exploring the prevalence of density-dependent diversification. *Talk* presented at: 26th Annual Undergraduate Research, Scholarship and Creative Activities Conference; May 2015; Davis, California.

Awards and Honors

2019 **DAAD Short-Term Reserach Grant**, Provided travel support to work with Sebastian Höhna in Münich, October 2019.

2019 **Walker Family Endowed Fellowship in Biology**, Award offered to UW Biology graduate students for research or travel expenses.

2016 **NSF-GRFP Fellow**

2016 **ARCS Foundation Fellow**

2015 **University Medal**, The University Medal is the highest campus honor, awarded to a single graduating senior in recognition of superior scholarship and achievement.

2014 **Barry Goldwater Scholarship**, Awarded to undergraduates (nominated by their institution) demonstrating academic merit and potential for a career in reserach.

Software

RevBayes General purpose (open-source) package for Bayesian phylogenetic analysis. Link. *(Contributor)*

BIOL 481 Material for two R-based dry labs for UW BIOL 481. Link. *(Principal developer)*

Teaching experience

2018 BIOL 481: While TAing for this class (Experimental Evolution and Ecology), I helped to develop a set of computational (dry) labs for the course. I devised lab protocols and wrote R code necessary for students to investigate population cycling and the mechanism of mutation.

2017 BIOL 180: TA for UW Biology's first course in the intro series. Wrote recommendations for several students.

2014 ISHP Fall Seminar: I and a team of other undergraduates planned and ran a mandatory seminar for the 115 freshmen in the Integrated Studies Honors Program (ISHP). The seminar provided an interdisciplinary look at ways students engage with society and nature. I and another student were charged with one class period, for which we brought in a guest speaker, engaged students with scientific literature, and led a discussion about the cognitive benefits of nature.

2014 ISHP Colloquium: I co-led a weekly discussion for the fall seminar in which my partner and I attempt to have the students engage with the material in engaging ways, such as informal debates. Our end goal was for students to engage with the material on a philosophical level.

2013 ISHP Spring Seminar: I and four other students led a seminar on ethics for 80 sophomores in the ISHP. The course included lectures and whole class discussions.

Professional service

Reviewer

- BMC Evolutionary Biology
- Molecular Biology and Evolution
- Molecular Ecology Resources
- Systematic Biology
- Virus Evolution

Departmental Service

2019-2020 Member, UW Biology Graduate Programming Committee