ADRIAN FORSYTHE

Postdoctoral Researcher

adrian.e.forsythe@gmail.com | +46 76 413 07 22 | Uppsala, Sweden | adrianforsythe.github.io
@adrian_forsythe | adrian-forsythe-85b40a96 | AdrianForsythe | 0000-0003-1966-9946

EMPLOYMENT

Postdoctoral Researcher

Uppsala University

Sept 2020 – Ongoing | Uppsala, SWE

Currently, I am a PostDoctoral Researcher in the Guschanski Lab, where my research focuses on both the ancient and modern microbiomes of wild mammals and identifying antimicrobial resistance factors within these communities. The goal of my research is to ultimately contribute to conservation efforts to curb disruptions to microbial ecosystems.

EDUCATION

Ph.D. in Microbiology

McMaster University

Sept 2016 – Aug 2020 | Hamilton, Canada

Thesis title: Population Genetic Investigation of the White-Nose Syndrome Pathogen,*Pseudogymonascus destructans*, in North America

M.Sc. in Microbiology

McMaster University

Sept 2014 – Aug 2016 | Hamilton, Canada

B.Sc. in Biology, Honours

Trent University

Sept 2010 – May 2014 | Peterborough, Canada

MOST RECENT PUBLICATIONS

Journal Articles

- Forsythe, A., Brealey, J. C., Gadhvi, M., Su, J., & Guschanski, K. (2022). Dynamics and metagenomics of oral disease in scandinavian brown bears (ursus arctos). *Nature Communications*, *0*(0), 0.
- Forsythe, A., Fontaine, N., Bissonnette, J., Hayashi, B., Insuk, C., Ghosh, S., … Cheeptham, N. (2022). Microbial isolates with anti-*Pseudogymnoascus destructans* activities from western canadian bat wings. *Scientific Reports*.
- Moraitou, M., Forsythe, A., Fellows Yates, J. A., Brealey, J. C., Warinner, C., & Guschanski, K. (2022). Dental calculus metagenomics suggest that ecology, not host phylogeny, shapes the oral microbiome in closely related species. *eLife*, *0*(0), 0.

ACHIEVEMENTS

Academic Publishing Record
7 first-author papers, 77 citations, h-index = 5

Lead organizer for Ontario Ethology, Ecology, and Evolution 2019 conference.
The largest graduate student-organized biology/psychology event in Ontario

Advising/Consulting
An advisor for the McMaster chapter of the Society of Industrial and Applied Mathematics (SIAM). Overleaf Advisor (`overleaf.com/advisors!members`)

STRENGTHS

Hard-working | Eye for detail | Motivator & Leader

Desktop Linux | Unix | Docker/Singularity | Anaconda | Data Visualization | tidyverse | plotly | Rshiny | snakemake | Nextflow | Web Scraping | ML Applications

Wet and Dry Lab Skills | Hypothesis testing | Statistical Analysis | Microbial genetics | Landscape Genetics | Microbiome | Metabarcoding | Pangenomics | Genome Assembly and Annotation

PROFICIENCY OF KEY SKILLS

Bash
R
Python

RELEVANT PROJECTS

Standards, Precautions, and Advances in Ancient Metagenomics (SPAAM)

Academic Community

- Contributed to curating a resource of all published shotgun-sequenced ancient metagenome samples.
- Primarily meant to act as a reference guide to help point researchers toward any relevant public data for comparative analysis.
- Help researchers track growth and development of the field of ancient metagenomics over time.

- Forsythe, A., Vanderwolf, K. J., & Xu, J. (2021). Landscape genetic connectivity and evidence for recombination in the north american population of the white-nose syndrome pathogen, pseudogymnoascus destructans. *Journal of Fungi*, *7*(3), 182.
- Insuk, C., Pongpamorn, P., Forsythe, A., Matsumoto, A., Ōmura, S., Pathom-Aree, W., … Xu, J. (2021). Taxonomic and metabolite diversities of moss-associated actinobacteria from thailand. *Metabolites*, *12*(1), 22.
- Ashu, E. E., Kim, G. Y., Roy-Gayos, P., Dong, K., Forsythe, A., Giglio, V., … Xu, J. (2018). Limited evidence of fungicide-driven triazole-resistant aspergillus fumigatus in hamilton, canada. *Canadian journal of microbiology*, *64*(2), 119–130.
- Du, J., Guo, H.-B., Li, Q., Forsythe, A., Chen, X.-H., & Yu, X.-D. (2018). Genetic diversity of lepista nuda (agaricales, basidiomycota) in northeast china as indicated by srap and issr markers. *PLoS One*, *13*(8), e0202761.
- Forsythe, A., Giglio, V., Asa, J., & Xu, J. (2018). Phenotypic divergence along geographic gradients reveals potential for rapid adaptation of the white-nose syndrome pathogen, pseudogymnoascus destructans, in north america. *Applied and environmental microbiology*, *84*(16), e00863–18.
- Forsythe, A., & Xu, J. (2017). The complete mitochondrial genome of the white-nose syndrome pathogen, pseudogymnoascus destructans. *Mitochondrial DNA Part B*, *2*(1), 48–49.
- Ashu, E., Forsythe, A., Vogan, A., & Xu, J. (2016). Filamentous fungi in fermented foods. *Fermented Foods, Part I: Biochemistry and Biotechnology*, 60–90.
- Ferreira, C., Bastille-Rousseau, G., Bennett, A. M., Ellington, E. H., Terwissen, C., Austin, C., … Forsythe, A., et al. (2016). The evolution of peer review as a basis for scientific publication: Directional selection towards a robust discipline? *Biological Reviews*, *91*(3), 597–610.
- Forsythe, A., Vogan, A., & Xu, J. (2016). Genetic and environmental influences on the germination of basidiospores in the cryptococcus neoformans species complex. *Scientific reports*, *6*(1), 1–12.

- https://github.com/SPAAM-community

Project 2

Funding agency/institution

Project duration

A short abstract would also work.