BRIAN A. WHYTE, PHD

Animal Behavior Scientist | Lecturer | Data Analyst
whyteBA@gmail.com | LinkedIn | Website | Publications

SUMMARY

With a 10-year background in animal behavior research around the world, my greatest skills are being able to independently learn and perform advanced data analysis, analytical chemistry, management of research teams and large classrooms, and effective science communication through public speaking to any audience. While I honed these skills through my PhD and postdoctoral work on social recognition in ants and worms, I now wish to solve problems in the human world with a team as a data analyst or associate researcher.

EDUCATION

University of California, Berkeley, Ph.D. in Environmental Science 2022
State University of New York, Plattsburgh, B.S. in Ecology, Summa Cum Laude 2014
Monroe Community College, A.S. in Liberal Arts, Magna Cum Laude 2012

SKILLS

Scientific research, data analysis, coding (R, Python), experimental design, advanced statistics, analytical chemistry (GC-MS, HPLC-MS, including machine maintenance), modeling & simulations, machine learning, data visualization, automated data collection & analysis, technical writing, public speaking, lecturing, teaching, outreach, nature hike tour guiding, drawing

EXPERIENCE

Lecturer @ University of Massachusetts Amherst, USA 2026-pres.
- Immediately started **teaching an upper division course** (Animal Behavior) and received **substantially positive student reviews** despite my first time as a college professor.
- Negotiated start-up funds to continue research with undergrads and masters.

Postdoctoral Researcher @ University of Toulouse, France 2023-2025
- Obtained **competitive funding from an international foundation**, then designed and conducted experiments testing how the arrival of new social information alters the resiliency of an animal social hierarchy.
- **Mentored 2 masters** and 4 undergrads for help recording and analyzing **200 hours of videos**, and hundreds of analytical chemistry samples for both **gas and liquid chromatography**.

PhD Dissertation @ University of California Berkeley, USA 2015-2022
> Climate change survival analysis
- Revitalized a $1 million project by **directing a team of 12** to perform experiments and monitor data for **>20,000 test subjects**, used multivariate **feature selection** and **proportional hazard modeling** to deduce factors driving resilience against rising temperatures.

> Behavioral experiment design & hypothesis testing
- Designed and conducted dozens of novel behavioral assays testing how animals use information to accept or reject other members of their society.
- Planned experiments with preliminary datasets and **power analyses**
- Tested hypotheses and described project outcomes with statistical methods such as **permutation testing**, **generalized linear models**, **multivariate discriminant analyses**, and **cross-validation**.

> Automated analytical chemistry
- Developed an **R pipeline** for collaborators to organize and identify chemical compounds from GC-MS data, substituting a necessary expensive software for my team.

Guest Scientist @ Max Planck Institute for Animal Behavior, Germany 2021
- Trained a **custom markerless pose-estimation model** to quantify social interactions of parasitic worms never studied on camera before.
- Collaborated with and presented results to an international and multidisciplinary audience.

Field Research Intern @ Jama-Coaque Reserve, Ecuador 2015
- Designed a point-sampling method for estimating the number of howler monkey groups in a tropical forest. Collected this data by following monkeys in a jungle at 5 am every morning.

Research Intern @ National Institute for Mathematical and Biological Synthesis 2014
- Developed an **agent-based evolutionary simulation** in R with a team of mathematicians to forecast how social identities in ants change over time. Presented results on local TV.

TEACHING, WRITING & PUBLIC SPEAKING

- Designed and delivered **>200 college-level lectures and speeches on science** to audiences with various backgrounds, from expert peers to curious children.
- Wrote **>200 pages of scientific publications** in national and international journals.
- Managed the progress of **>1000 students from teaching four lab courses and one lecture series**, consistently receiving high scores on teaching evaluations.
- Hosted monthly "insect booths" at the California Academy of Sciences Night-life events, **presenting scientific research for late-night entertainment.**
- Balanced education, entertainment, and safety as a tour guide in the Rocky Mountains.