Sveinn Valtyr Einarsson

EXPERIENCE

Post Doctoral Research Associate

University of Florida / USDA GBRU Affiliate January 2022 – Present, Gainesville, FL

- Package genomic software for ease of distribution and use by scientists in bioinformatic pipelines.
- Upgraded the ITSxpress python package for use with new versions of bioinformatic pipelines, as a plugin for Qiime2. Upgrades included, expanding use cases, fixing bugs, resolving dependency issues, Docker containerization, continuous integration, git/github version control, conda packaging and benchmarking on HPC.
- Currently researching bacterial infections of roots and plant seed microbiomes, using bayesian networks, metagenomics, and/or exo-metabolomics data.

Visiting Assistant Professor of Biology

Haverford College

October 2021 - December 2021, Haverford, PA

- Taught 2 courses:
 - o BIO450 Advanced Topics in Biology: Biogeochemical Modeling.
 - o BIO300 Advanced Lab in Biology (Co-instructor with Dr. Kristen Whalen).

Graduate Research/Teaching Assistant

Old Dominion University

August 2016 - September 2021, Norfolk, VA

- DNA/RNA extraction, amplification, and high-throughput sequencing; Cloning; Quantitative PCR; diatom culturing, trace metal clean incubations, RNA-seq.
- Field experience:
- 2019 (Oct-Nov) S. A. Aghullas II; SCALE 2019. Field and incubation sampling of DNA/RNA, dissolved iron, nitrate, and nitrogen isotopes.
- 2018 (Sept-Nov) R/V Revelle; GEOTRACES GP15, Pacific Ocean. Deployment of a trace metal clean rosette and GeoFish, DNA/RNA sample collection, single cell analysis and trace metal clean sampling for SXRF (synchrotron radiation X- ray fluorescence).
- 2016 (Sept-Oct) R/V I/B Nathaniel B. Palmer; Southern Ocean. Deployment of trace metal clean rosette, DNA/RNA and metatranscriptomic sample collection, dissolved iron and total metal sampling.
- Graduate Teaching Assistant, Introduction to Oceanography (Dr. Shannon Wells primary instructor).

EDUCATION

Doctor of Philosophy, Oceanography

Old Dominion University • Norfolk, VA • 2021

Master of Science, Ocean and Earth Science

Old Dominion University • Norfolk, VA • 2018

Bachelor of Science, Ocean and Earth Science

Minor in Computer Engineering • Old Dominion University • Norfolk, VA • 2016

Matricular Examination with Physics concentration Verslunarskóli Íslands •

Reykjavik, Iceland • 2011

PUBLICATIONS

Peer reviewed publications:

Einarsson S.V, Lowry K., Ashjian C., Lin P., Pickart R., Chappell P. D. (2022),

Alexandrium on the Alaskan Beaufort Sea shelf: Impact of upwelling in a warming Arctic. Harmful Algae, 120: 102346.

Abdala, Z.M., Clayton, S., Einarsson, S.V., Powell, K., Till, C.P., Coale, T.H. and Chappell, P.D. (2022), Examining ecological succession of diatoms in California Current System cyclonic mesoscale eddies. Limnol Oceanogr, 67: 2586-2602.

Selden C. R., Einarsson S. V., Lowry Kate, Crider K. E., Pickart R. S., Lin P., Ashjian C., Chappell P. D. (2022). Coastal upwelling enhances abundance of a symbiotic diazotroph (UCYN-A) and its haptophyte host in the Arctic Ocean. Fron in Mar Sci, 9. * Co-first author

Submitted:

Sveinn V. Einarsson, Kim Powell, Claire Till, Tyler Coale, P. Dreux Chappell. Diatom Community Response to High and Low Iron Upwelling Plumes in the California Current System Mar Ecol Prog S.

Publications complete; to be submitted following collaborator review:

Sveinn V. Einarsson and Adam R. Rivers. ITSxpress Version 2. Microbiology Spectrum.

PROGRAMMING EXPERIENCE

7+years Python, Matlab, Shell. In addition to several years of experience with R, C++ and Assembly.

NVIDIA DLI - Fundamentals of Deep Learning Certificate

OUTREACH & PROFESSIONAL SERVICE

2017-2021 Blue Crab Bowl Volunteer

2016-2018 Science outreach with VA Young Scientist's Program

2017 Guest Lecturer for AP Environmental Science and AP Marine Biology at Cape Henry Collegiate,

VA

2014-2017 Virginia Beach EMS Emergency Medical Technician

OTHER LICENSES

2014 FAA Private Pilot License, Epix Aviation, Chesapeake, VA

2012 Emergency Medical Technician, University of Iowa Hospitals and Clinics, Iowa City, IA

REFERENCES

Available upon request:

- USDA GBRU Adam R. Rivers
- Haverford College Kristen Whalen
- Old Dominion University P. Dreux Chappell (Current affiliation University of South Florida)