Harriet Alexander, PhD

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Professional Preparation

Wellesley College Biological Sciences B.A., 2010 MIT/Woods Hole Oceanographic Institution Biological Oceanography Ph.D. 2016

(a) Appointments

2018-present: Assistant Scientist, Woods Hole Oceanographic Institution, Woods Hole, MA

2016–2018: Postdoctoral Fellow, University of California, Davis, CA

2002, 2003: Postdoctoral Researcher, Lamont-Doherty Earth Observatory, Columbia University Pal-

isades, NY

(b) Ten Relevant Products

- 1. Hu SK, Liu Z, Alexander H, Campbell V, Connell PE, Dyhrman ST, Heidelberg KB, Caron DA. (2018). Shifting metabolic priorities among key protistan taxa within and below the euphotic zone. *Environmental Microbiology*. doi:10.1111/1462-2920.14259.
- **2.** Rouco M, Frischkorn KR, Haley ST, **Alexander H**, Dyhrman ST. (2018). Transcriptional patterns identify resource controls on the diazotroph *Trichodesmium* in the Atlantic and Pacific oceans. *The ISME Journal* 12:1486–1495. doi:10.1038/s41396-018-0087-z.
- **3.** Haley ST, **Alexander H**, Juhl AR, Dyhrman ST. (2017). Transcriptional response of the harmful raphidophyte *Heterosigma akashiwo* to nitrate and phosphate stress. *Harmful Algae* 68:258–270. doi:10.1016/j.hal.2017.07.001.
- **4.** Harke MJ, Juhl AR, Haley ST, **Alexander H**, Dyhrman ST. (2017). Conserved transcriptional responses to nutrient stress in bloom-forming algae. *Frontiers in Microbiology* 8. doi:10.3389/fmicb.2017.01279.
- Moniruzzaman M, Wurch LL, Alexander H, Dyhrman ST, Gobler CJ, Wilhelm SW. (2017). Virus-host relationships of marine single-celled eukaryotes resolved from metatranscriptomics. *Nature Communi*cations 8:16054. doi:10.1038/ncomms16054.
- **6.** Guy-Haim T, **Alexander H**, Bell TW, Bier RL, Bortolotti LE, Briseño-Avena C, Dong X, Flanagan AM, Grosse J, Grossmann L, Hasnain S, Hovel R, Johnston CA, Miller DR, Muscarella M, Noto AE, Reisinger AJ, Smith HJ, Stamieszkin K. (2017). What are the type, direction, and strength of species, community, and ecosystem responses to warming in aquatic mesocosm studies and their dependency on experimental characteristics? A systematic review protocol. *Environmental Evidence* 6:6. doi:10.1186/s13750-017-0084-0.

- 7. Caron DA, Alexander H, Allen AE, Archibald JM, Armbrust EV, Bachy C, Bell CJ, Bharti A, Dyhrman ST, Guida SM, Heidelberg KB, Kaye JZ, Metzner J, Smith SR, Worden AZ. (2016). Probing the evolution, ecology and physiology of marine protists using transcriptomics. *Nature Reviews Microbiology* 15:6–20. doi:10.1038/nrmicro.2016.160.
- **8. Alexander H**, Rouco M, Haley ST, Wilson ST, Karl DM, Dyhrman ST. (2015). Functional group-specific traits drive phytoplankton dynamics in the oligotrophic ocean. *Proceedings of the National Academy of Sciences* 112:E5972–E5979. doi:10.1073/pnas.1518165112.
- **9. Alexander H**, Jenkins BD, Rynearson TA, Saito MA, Mercier ML, Dyhrman ST. (2012). Identifying reference genes with stable expression from high throughput sequence data. *Frontiers in Microbiology* 3:385. doi:10.3389/fmicb.2012.00385.
- **10.** Dyhrman ST, Jenkins BD, Rynearson TA, Saito MA, Mercier ML, **Alexander H**, Whitney LP, Drzewianowski A, Bulygin VV, Bertrand EM, Wu Z, Benitez-Nelson C, Heithoff A. (2012). The transcriptome and proteome of the diatom *Thalassiosira pseudonana* reveal a diverse phosphorus stress response. *PloS one* 7:e33768. doi:10.1371/journal.pone.0033768.

(c) Synergistic Activities

- 1. Teaching / Outreach: (i) Lead instructor for Software Carpentry Workshops at WHOI (2015) and McMurdo Station (2018) (ii) Instructor and co-developer of Environmental Metagenomics Workshops held at UCSD (2016), UCD (2017), UCSC (2017), and Centro de Investigación Científica y de Educación Superior de Ensenada (2017) (iii) entor for ASLO Multicultural Program (mentored group of 4 undergraduates during the meeting) (2017)
- **2. Fellowship Awards:** (i) National Defense Science and Engineering Fellowship (2011-2014) (ii) National Science Foundation Graduate Research Fellowship (*declined*)
- **3. Session Chair:** (i) ASLO Aquatic Sciences Meeting (Honolulu, HI, 2017) (ii) SciPy (Scientific Python Computing) Meeting (Austin, TX, 2016)
- **4. Reviewer:** NSF Career Award, NDSEG Fellowship, ISME Journal, Limnology and Oceanography, Journal of Phycology, Journal of Heredity, Environmental Microbiology
- **5. Participation in Competitive Professional Development Programs:** (i) NSF Antarctic Biology Training Program (2018) (ii) National Academy Keck Futures Initiative (NAKFI): Discovering the Deep Blue Sea (2016) (iii) Ecological Dissertations in the Aquatic Sciences (2016)