

CONTACT INFORMATION	University of Chicago 1103 E 57th St Chicago, IL	<i>E-mail:</i> parevalo@uchicago.edu <i>Website:</i> www.philarevalo.com
CURRENT POSITION	<b>Postdoctoral Scholar, University of Chicago</b> , Chicago, IL, September 2017 - Present Department of Ecology & Evolution Supervisor: Sarah Cobey	
EDUCATION	<b>Ph.D., MIT</b> , Cambridge, MA, August 2017 Microbiology Advisor: Martin Polz Thesis Topic: Horizontal Gene Transfer as a Cohesive Force in Microbial Populations  <b>Sc.B., Brown University</b> , <i>cum honoribus</i> , Providence, RI, 2011 Applied Mathematics-Biology A.B.: Classics Advisor: Jeremy Rich Senior thesis topic: Diversity of anammox bacteria in ocean sediments.	
RESEARCH POSITIONS	<b>Research Assistant, Woods Hole Oceanographic Institution</b> , Woods Hole, MA July 2011 - August 2012 Advisor: Stefan Sievert Research topic: Bacterial and archaeal community composition in oxygen minimum zones and hydrothermal vents.	
TEACHING EXPERIENCE	<b>Graduate</b> of Kaufman Teaching Certificate Program, MIT (Summer 2017) <b>Teaching Assistant</b> for Microbial Population Genomics, MIT (Fall 2016) <b>Teaching Assistant</b> for Microbial Genetics and Evolution, MIT (Fall 2014) <b>Lecturer</b> Bioinformatics Workshop, Centro de Biología Molecular, Managua, Nicaragua (March 2014)	
PRIMARY AUTHOR PUBLICATIONS	<ol style="list-style-type: none"> <li>Hehemann, J.-H.*, <b>Arevalo, P.*</b>, Datta, M.S.*, Yu, X., Corzett, C., Preheim, S.P., Henschel, A., Timberlake, S., Alm, E.J., Polz, M.F. (2016). <i>Adaptive radiation by waves of gene transfer leads to fine-scale resource partitioning in marine microbes</i>. Nature Communications, 7. doi:10.1038/ncomms12860.</li> <li><b>Arevalo, P.</b>, Elsherbini, J., VanInsberghe, D., Gore, J., Polz, M.F. <i>A biological definition for microbial populations</i>. In Prep.</li> </ol> <p><i>* indicates equal contribution of authors</i></p>	
CONTRIBUTING AUTHOR PUBLICATIONS	<ol style="list-style-type: none"> <li>Takemura, A., Corzett, C., Hussain, F., <b>Arevalo, P.</b>, Datta, M., Yu, X., Le Roux, F., Polz, M.F. (2017). Natural resource landscapes of a marine bacterium reveal distinct fitness-determining genes across the genome. Environmental Microbiology, 19:2422–2433. doi:10.1111/1462-2920.13765.</li> </ol>	

2. Chase, A.B., **Arevalo, P.**, Polz, M.F., Berlemont, R., Martiny, J.B.H. (2016). *Evidence for ecological flexibility in the cosmopolitan genus Curtobacterium*. *Frontiers in Microbiology*, 7:1874. doi: 10.3389/fmicb.2016.01874
3. Polzin, J., **Arevalo, P.**, Polz, M.F., Bright, M. Ontogenetic shifts in symbiont genotypes in hydrothermal vent tubeworms. Submitted.
4. Kauffman, K., Hussain, F., Yang, J., **Arevalo, P.**, Brown, J., Cutler, M., Kelly, L., Polz, M.F. Nontailed viruses are major unrecognized killers of bacteria in the ocean. Submitted.

#### PRESENTATIONS AND POSTERS

- Arevalo, P.** *Horizontal gene transfer as a cohesive force in microbial populations*. April 2017. University of Chicago Ecology & Evolution Darwin's Weekly. Invited oral presentation.
- Arevalo, P.** & Polz, M.F. *A biological definition for microbial populations and its application to a reverse ecology approach*. August 2016. 16th International Symposium for Microbial Ecology. Evolution. Invited oral presentation (co-convener).
- Arevalo, P.** *A biological definition for microbial populations and its application to a reverse ecology approach*. Center for Microbiome Informatics and Therapeutics. June 2016. Work-in-progress meeting. Oral presentation.
- Arevalo, P.**, Wuchter, C., Yang, T-H., Coolen, M., Sievert, S. *Stratified bacterial and archaeal communities across the oxygen minimum zone of the Eastern Tropical North Pacific*. August 2012 . 14th International Symposium for Microbial Ecology. Microbes in a changing ocean. Contributed oral presentation.
- Arevalo, P.** & Rich, J. *Diversity and abundance of anammox bacteria along environmental gradients in the Peru margin*. February 2011. American Society for Limnology and Oceanography Aquatic Sciences Meeting. Student Poster Session.

#### HONORS AND AWARDS

- National Science Foundation Graduate Research Fellow (2012 - 2017)
- MIT Energy Initiative BP Energy Fellow (2012)
- Elected to the Society of Sigma Xi (May 2011)
- Brown University Povar Prize in Zoology and Physiology (May 2011)

#### OUTREACH

- Guest Lecturer** Biotechnology III, Cambridge Rindge and Latin School (November 2016)
- SPLASH Instructor** Educational Studies Program, MIT (November 2013 & November 2015)

#### SERVICE

- Graduate Resident Tutor**, MIT (March 2014 - Present)
- Ran regular study breaks, assisted in conflict resolution, and ensured general well-being of undergraduate students in a residential setting.
- Writing Fellow**, Brown University (September 2008 - May 2011)
- Provided writing support for ten students per semester focused on argumentation, style, and clarity.

#### PROGRAMMING LANGUAGES

- Main:** Python
- Experienced:** Matlab, Linux shell
- Used in the past:** Java
- Github:** <http://github.com/philarevalo>

#### MENTORED STUDENTS

- Jai Padmakumar, Microbiology graduate program rotation (Spring 2017)
- Joseph Elsherbini, Microbiology graduate program rotation (Winter 2015)