

## R. ERIC COLLINS, PH.D.

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### EDUCATION AND RESEARCH EXPERIENCE

**Canada Research Chair (Tier II) in Arctic Marine Microbial Ecosystem Services,**  
**Assistant Professor of Environment and Geography,** University of Manitoba (2019–)  
**Assistant Professor of Biological Oceanography,** University of Alaska Fairbanks (2013–2019)  
**Postdoctoral Fellow in Astrobiology,** McGill University (2012–2013)  
**Postdoctoral Fellow in Astrobiology,** McMaster University (2009–2012)  
**Ph.D. Biological Oceanography,** University of Washington (September 2009)  
**Certificate in Astrobiology,** University of Washington (2009)  
**M.S. Biological Oceanography,** University of Washington (2006)  
**B.S. Biochemistry with Honors,** Washington State University (2002)

### FUNDING – LAST 5 YEARS

Natural Sciences and Engineering Research Council of Canada (\$500,000). North Pacific Research Board (\$175,000 + \$20,000). NSF EPSCoR (\$187,000). NSF Polar Division (\$550,000). NOAA Ocean Exploration and Research (\$150,000 + \$289,000). NOAA CIFAR (\$30,000). National Ocean Partnership Program (\$138,000). Bureau of Ocean Energy Management (\$596,000).

### MENTORING – LAST 5 YEARS

**As Graduate Chair:** Patricia Montalvo (2019–), Anais Gentilhomme (2018–), Rachel Lekanoff (2016–2020), Brian Ulaski (2015–2017)

**As Postdoc Advisor:** Dr. Anne-Lise Ducluzeau (2014–2017), Dr. Brandon Hassett (2017)

**On Graduate Committee:** Anna Szymanski (MS 2014), Brandon Hassett (PhD 2016), Kyle Dilliaine (MS 2017), Alexis Walker (PhD), Marc Oggier (PhD), Taylor Gofstein (PhD), Channing Bolt (PhD), Thilo Klenz (PhD), Zac Cooper (UW, PhD)

**Of Undergraduate Researchers:** Rei Shibue (2017), Jesse Klejka (2018), Madison Herron (2017–2018), Elva House (2018)

### TEACHING EXPERIENCE – LAST 5 YEARS

MSL492/692 Fisheries and Oceanography Seminar. BIOL342 General Microbiology. MSL692 Controversies in Microbial Science. MSL449/650 Biological Oceanography. MSL493 Ecological and Evolutionary Genomics. MSL699 Sea Ice Ecology. MSL294 Astrobiology. MSL649 Field Techniques in Interdisciplinary Sea Ice Research.

## SELECTED PUBLICATIONS – LAST 5 YEARS

- Bowman KL, **Collins RE**, Agather AM, Lamborg CH, Hammerschmidt CR, Kaul D, Dupont CL, Christensen GA, Elias DA (2019) Distribution of mercury-cycling genes in the Arctic and equatorial Pacific Oceans and their relationship to mercury speciation. *Limnology and Oceanography* 65:S310-S320.
- Kasanke C, **Collins RE**, Leigh MB (2019) Identification and Characterization of a Dominant Sulfolane-Degrading *Rhodospirillum rubrum* Stable Isotope Probing Combined with Metagenomics. *Scientific Reports* 9:1-9.
- Ducluzeau AL, Tyson JR, **Collins RE**, Snutch TP, Hassett BT (2018) Genome Sequencing of Sub-Arctic Mesomycetozoean *Sphaeroforma sirius* Strain B5, Performed with the Oxford Nanopore minION and Illumina HiSeq Systems. *Microbiology Resource Announcements* 7:e00848-18.
- Deming JW, **Collins RE** (2017) **Sea Ice as a Habitat for Bacteria, Archaea and Viruses**. In *Sea Ice, 3rd Edition*, D Thomas Ed.. John Wiley & Sons, Ltd.
- Hassett BT, Ducluzeau AL, **Collins RE**, Gradinger R (2017) **Spatial distribution of aquatic marine fungi across the western Arctic and sub-Arctic**. *Environmental Microbiology* 19:475–484. doi:10.1111/1462-2920.13371

## SELECTED PUBLICATIONS – OTHER RELEVANT

- Fuchsman CA, **Collins RE**, Rocap G, Brazelton WJ (2017) **Effect of the environment on horizontal gene transfer between bacteria and archaea**. *PeerJ* 5, e3865.
- Kopf A, Bicak M, and 148 co-authors including **Collins RE** (2015) **The ocean sampling day consortium**. *GigaScience* 4:1–5. *Open Access*. doi:10.1186/s13742-015-0066-5
- **Collins RE**, Deming JW (2013) **An inter-Order horizontal gene transfer event enables the catabolism of compatible solutes by *Colwellia psychrerythraea* 34H**. *Extremophiles* 17:601–610. *Open Access*. doi:10.1007/s00792-013-0543-7
- **Collins RE**, Higgs PG (2012) **Testing the Infinitely Many Genes model for the bacterial core genome and pangenome**. *Molecular Biology and Evolution* 29:3413–3425. *Open Access*. doi:10.1093/molbev/mss163
- **Collins RE**, Rocap G, Deming JW (2010) **Persistence of bacterial and archaeal communities in sea ice through an Arctic winter**. *Environmental Microbiology* 7:1828–1841. *Open Access*. doi:10.1111/j.1462-2920.2010.02179.x

## PROFESSIONAL SERVICE

- President of the American Society for Microbiology Alaska Branch (2017–2018)
- US representative of the Circumpolar Biodiversity Monitoring Project (CBMP) Sea Ice Biota Expert Network, a function of the Arctic Council’s Conservation of Arctic Flora and Fauna (CAFF) working group.
- Referee for journals in polar ecology, environmental microbiology, and molecular evolution: *FEMS Microbiology Ecology*, *Environmental Microbiology*, *Aquatic Microbial Ecology*, *Marine Ecology Progress Series*, *Journal of Marine Systems*, *Aquatic Sciences*, *Polar Biology*, *BMC Genomics*, *Molecular Biology and Evolution*, *PLoS ONE*.
- Proposal referee for NSF Division of Polar Programs and NASA Exobiology.