

Herdís Guðlaug R. Steinsdóttir

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Summary

Researcher in oceanic biogeochemistry and microbiology with experience and interest in bioinformatics. Good understanding of R, Python and Bash. Background in fisheries and oceanography. Extensive field experience. Strong communication skills with over three years of teaching experience.

Education

2018-2021 PhD. Biology (Biogeochemistry & Molecular Biology)

Thesis: *Anaerobic methane oxidation in coastal oxygen-depleted waters: Dynamics, Pathways, and Environmental Controls*

University of Southern Denmark, Nordcee, Adv. Laura Bristow and Bo Thamdrup

External thesis research | Aug-Nov 2020

Aarhus University, Adv. Andreas Schramm

2016-2018 MSE. Aquatic Science and Technology (Oceanography)

Thesis: *Nitrous oxide emissions from shallow aquatic systems: Effects of high temperatures during meteorological extreme events*

Technical University of Denmark and University of Cádiz, Adv. Colin Stedmon and Emilio Garcia-Robledo

2013-2016 BS. Biology

University of Southern Denmark

Research positions

2022-now Postdoctoral Researcher

Microbial and biogeochemical signatures of coral reefs

The Interuniversity Institute of Marine Sciences in Eilat and The Hebrew University of Jerusalem

2022 Freelance Researcher

Testing the effect of a looming eye buoy on bird bycatch in Lumpfish gillnets

BioPol Biotechnology Centre and Birdlife International

2021 Research Assistant

Anaerobic methane oxidation in coastal oxygen-depleted waters

University of Southern Denmark, Nordcee

Publications

1. **Herdís GR Steinsdóttir**, Eddy Gómez Ramírez, Snehit Mhatre, Clemens Schauburger, Anthony D Bertagnolli, Zoe A Pratte, Frank J Stewart, Bo Thamdrup, and Laura A Bristow. Anaerobic methane oxidation in a coastal oxygen minimum zone: spatial and temporal dynamics. *Environmental Microbiology*, 24(5):2361–2379, 2022
2. **Herdís GR Steinsdóttir**, Snehit Mhatre, Clemens Schauburger, Bo Thamdrup, and Laura A Bristow. Aerobic and anaerobic methane oxidation in a seasonally anoxic basin. *Limnology and Oceanography*, 67(6):1257–1273, 2022
3. Bo Thamdrup, **Herdís GR Steinsdóttir**, Anthony D Bertagnolli, Cory C Padilla, Nastassia V Patin, Emilio Garcia-Robledo, Laura A Bristow, and Frank J Stewart. Anaerobic methane oxidation is an important sink for methane in the ocean's largest oxygen minimum zone. *Limnology and Oceanography*, 64(6):2569–2585, 2019

Fellowships and Grants

- 2022-now **Carlsberg Internationalisation Fellowship** (\$100,000)
2022-now **IUI Post-Doctoral Fellowship** (\$30,000)

Invited talks

- 2023 Aquatic Sciences Meeting (ASLO). Session SS036.
Title: Methylococcales ecotypes in a coastal oxygen minimum zone [[Abstract](#)]

Research experience & -techniques

- 2021 **Ph.D. Thesis:** *Anaerobic methane oxidation in coastal oxygen-depleted waters: Dynamics, Pathways, and Environmental Controls*, Adv. Laura Bristow and Bo Thamdrup
Techniques: Marine field work, biogeochemical analysis, radioisotope incubations, bioinformatics, CARD-FISH.
- 2019 **Caltech International Geobiology Course:** *Metagenomic Exploration of the Mono Lake Water Column: How Microbes Thrive despite High Salt and Arsenic Concentrations*, Adv. Victoria Orphan
Presented at [[2019 AGU Conference](#)]
Techniques: Metagenomics
- 2018 **M.A. Thesis:** *Nitrous oxide emissions from shallow aquatic areas: Effects of high temperatures during meteorological extreme events*, Adv. Emilio Garcia Robledo
Techniques: Isotope incubations, flux measurements, microelectrodes
- 2017 **Student project:** *Quantifying organic matter export from the Arctic Ocean through the Fram Strait*, Adv. Colin Stedmon
Presented at [[2018 Ocean Sciences Meeting](#)]
Techniques: Optical analysis, statistical modelling.
- 2016 **Student project:** *Using the auto-diametric method to evaluate Lumpfish fecundity*, Adv. Halldór G. Ólafsson and James Kennedy
Techniques: Automated image analysis, statistical analysis.

Technical skills

Proficient R, Python, Bash, Emacs, Latex, Inkscape
Some knowledge Git, HTML, Matlab

Selected courses

AAUS Scientific Diver Certificate | November 2022
 The Interuniversity Institute for Marine Sciences in Eilat

International Geobiology Course | June - July 2019
 Caltech

Teaching and mentoring

2020-2021 Mentor for new PhD students, University of Southern Denmark
2019-2021 Teaching Assistant, *Plants, protists, and fungi*, University of Southern Denmark
2020 Project advisor, *Field work in marine biology*, University of Southern Denmark
2019 Project advisor, *Field work in terrestrial biology*, University of Southern Denmark
2019 Bachelor thesis co-advisor, Dragana Rasmussen
 Thesis title: *Effect of oxygen on methane oxidation rates in two freshwater ponds*
2018 Teaching Assistant, *Pharmaceutical Toxicology*, University of Southern Denmark

Field expeditions

2022 Húnafljörður, Iceland, (BioPol, Birdlife International)
2019,2020 Golfo Dulce, Costa Rica (ERC, NOVAMOX Grant, SDU)
2019 Mariager Fjord, Denmark (ERC, NOVAMOX Grant, SDU)
2018 Rio Guadalete, Spain (M.A. Thesis, DTU/University of Cádiz)
2017 Fram Strait, Svalbard - Greenland (R/V Lance, DTU/Norwegian Polar Institute)
2017 Eastern Tropical North Pacific OMZ (R/V Oceanus, SDU)

Communication, leadership and volunteering

Toastmasters International, board member | 2019-2022

Non-profit organization teaching public speaking and leadership skills.

Co-founded the club in Odense. Delivered prepared and extemporaneous speeches and evaluations of other speakers. Organized, led and won an Oxford-style debate against Copenhagen Advanced Toastmasters.

Odense Science Lab, educator | 2021

Non-profit outreach program teaching primary and high school students about STEM research.

University of Southern Denmark, well-being representative PhD students | 2018-2021

Organized a workshop in improv comedy and organized and led two workshops in science communication.