# Andrew R. Thurber, Ph.D.

***Curriculum Vitae***

College of Earth, Ocean, and Atmospheric Sciences
Oregon State University
104 CEOAS Admin Building, Corvallis, OR 97331
*colddarkbenthos.ceoas.oregonstate.edu*

Department of Microbiology, College of Science
Tel: (+1) 541-737-4500
athurber@coas.oregonstate.edu
*Twitter: @colddarkbenthos*


## Interests

Ecosystem Ecology. Benthic Oceanography. Microbial Ecology.
Microbe-Metazoan Interactions. Biogeochemistry. Invertebrate Trophic Ecology.
Polar, Soft-Sediment, Subsurface, Cold-Seep, Hydrothermal & Deep-Sea Habitats.

## Education

2011-2014 Post Doctoral Fellow – Oregon State University
- Mentors – Drs. Rick Colwell (OSU) and Deron Burkepile (FIU – now UCSB)

2005-2010 Ph.D. in Oceanography - Scripps Institution of Oceanography, UC San Diego
- Advisor - Dr. Lisa Levin

2001-2005 M.S. in Marine Science (Distinction) - Moss Landing Marine Labs, CSU- Stanislaus
- Co-Advisors: Drs. Stacy Kim and Nicholas Welschmeyer

1997-2001 B.S. in Marine Biology (Magna Cum Laude) - Hawaii Pacific University
- Minor in Mathematics

## Appointments

2021-Current **Associate Professor (with Tenure)**– College of Earth, Ocean, and Atmospheric Sciences (CEOAS) & Department of Microbiology, College of Science (CoS), Oregon State University (OSU), USA

2016- 2021 **Assistant Professor** –CEOAS & Department of Microbiology, CoS, OSU

2014-2106 **Assistant Professor (Senior Research)** – CEOAS, OSU

## Select Grants (Career Total including Honors & Awards = **$5M**)

| Title | Role | Agency | Duration |
|---|---|---|---|
| CAREER: Ecosystem Impacts of Microbial Succession and Production at Antarctic Methane Seeps | Solo-PI | NSF –OPP | 2022-2026 |
| Applying "R-osmos" to quantify hot-moments in a high mountain watershed: co-development of novel methodology to advance terrestrial-aquatic interface models | PI | DOE-Office of Science | 2021-2023 |
| RAPID: Ecosystem impact of a coral bleaching event: The role of coral exudates in shifting oligotrophic biogeochemistry and reef microbiomes. | Solo-PI | NSF-Bio Oce | 2019-2022 |
| Gradients of Blue Economic Resources in and around Deep-Sea Methane Seeps | PI | NOAA-OER | 2019-2022 |
| Collaborative Research: Viral Reefscapes: The Role of Viruses in Coral Reef Health, Disease and Biogeochemical Cycling. | coPI (PI Vega Thurber) | NSF- Bio Oce | 2016-2020 |
| Quantifying Subsurface Biogeochemical Variability in a High Altitude Watershed During Winter Isolation | coPI (PI F. Colwell) | DoE Office of Science | 2017-2020 |

| | | | |
|---|---|---|---|
| Nutritional value of finfish and shellfish essential to Lummi diets | Subaward Lead PI (PI Peacock, NWIC) | USDA-NIFA | 2017-2020 |
| EAGER: Elucidating the Antarctic methane cycle at the Cinder Cones reducing habitat. | Solo-PI | NSF-OPP | 2016-2018 |
| Microbial communities in sandy layers of the Bengal-Nicobar fan | PI | US Science Support | 2016-2018 |
| Hydrogen Sulfide reduces growth rates in manila clams (*Venerupis philippinarum*) on Lummi tide flats | Subaward Lead (PI Hatch, NWIC) | USDA-NIFA | 2015-2018 |
| Seasonal diet changes for manila clams (*Venerupis philippinarum*) on Lummi tide flats: Building NWIC capacity for diet analysis | Subaward Lead PI (PI Hatch, NWIC) | USDA-NIFA | 2015-2018 |
| The value of Oregon's deep-sea habitat to Oregonians | PI | Oregon Sea Grant | 2017-2018 |
| Edginess in the subsurface: Microbial diversity of deep subseafloor ecotones | coPI (PI Colwell) | C-DEBI/ NSF | 2015-2016 |
| NSF Postdoctoral Fellow in Polar Regions Research | PI | NSF – OPP | 2011-2014 |

## Education focused Grants

| Title | Role | Agency | Duration |
|---|---|---|---|
| Student Research: Nested Mentoring Model To Support Northwest Indian College Students | Subaward Lead PI | USDA-NIFA | 2018-2020 |
| Inclusion of Oceanography in the Aquatic Microbiology Laboratory Course | PI | Ocean Going Research Vessel Program (OGRVP) | 2017-2019 |
| Taking OSU Microbiology Students to Sea: Integrating Microbial Oceanography in the "Aquatic Microbiology Laboratory" Course | PI | OGRVP | 2019-2021 |
| Taking OSU Undergraduates to Sea: Microbial Oceanography in the 'Aquatic Microbiology Laboratory' Course | PI | OGRVP | 2021-2023 |

## Publications

Citations = 2410**;** H-index$_{google}$ = 26; i10-index$_{google}$ = 39

*indicates OSU Graduate Student Author;˜Indicates OSU Undergraduate Student Author

*"Peer-Reviewed Journal Articles"*

1. German CR, Baumberger T, Lilley MD, Lupton JE, Noble AE, Saito M, **Thurber AR**, Blackman DK. In Press. Hydrothermal Exploration of the southern Chile Rise: Sediment-hosted venting at the Chile Triple Junction. G$^3$
2. Buser-Young J*, Lapham L, **Thurber AR**, Williams KH, Colwell F. 2021. Hidden processes during seasonal isolation of a high-altitude watershed. Frontiers in Earth Science. doi.org/10.3389/feart.2021.666819

3. Howell KL, Hilário A, Allcock AL, Bailey D, Baker M, Clark MR, Colaço A, Copley J, Cordes E, Danovaro R, Dissanayake A, Escobar E, Esquete P, Gallagher A, Gates AR, Gaudron SM, German CR, Gjerde K, Higgs ND, Le Bris N, Levin LA, Manea E, McClain C, Menot L, Mestre NC, Metaxas A, Milligan R, Muthumbi AWN, Narayanaswamy BE, Ramalho SP, Ramirez-Llodra E, Robson L, Rogers AD, Sellanes J, Sigwart J, Sink K, Snelgrove PRV, Stefanoudis PV, Sumida PY, Taylor ML, **Thurber AR**, Vieira R, Watanabe HK, Woodall LC, Xavier JR. 2021. A blueprint for an inclusive, global deep-sea Ocean Decade field programme. *Frontiers in Marine Science.* doi.org/10.3389/fmars.2020.584861
4. Howell KL, Hilário A, Allcock AL, Bailey D, Baker M, Clark MR, Colaço A, Copley J, Cordes E, Danovaro R, Dissanayake A, Escobar E, Esquete P, Gallagher A, Gates AR, Gaudron SM, German CR, Gjerde K, Higgs ND, Le Bris N, Levin LA, Manea E, McClain C, Menot L, Mestre NC, Metaxas A, Milligan R, Muthumbi AWN, Narayanaswamy BE, Ramalho SP, Ramirez-Llodra E, Robson L, Rogers AD, Sellanes J, Sigwart J, Sink K, Snelgrove PRV, Stefanoudis PV, Sumida PY, Taylor ML, **Thurber AR**, Vieira R, Watanabe HK, Woodall LC, Xavier JR. 2021. A Decade to Study Deep-Sea Life. *Nature Ecology and Evolution.* 5: 265-267.
5. Messyasz A*, Rosales SM, Mueller RS, Sawyer T, Correa AMS, **Thurber AR**, Vega Thurber R. 2020. Mo'orea Pocilloporidae Coral Virus (MPCV): A new Megavirus associated with scleractinian corals undergoing bleaching. *Frontiers in Marine Science. doi.org/10.3389/fmars.2020.555474*
6. Ingels J, Aronson RB, Smith CR, Baco-Taylor A, Bik HM, Blake JA, Brandt A, Cape M, Demaster D, Dolan E, Domack E, Fire S, Geisz H, Gigliotti M, Griffiths H, Halanych KM, Havermans C, Huettmann F, Ishman S, Kranz S, Leventer A, Mahon AR, Mcclintock J, Mccormick ML, Mitchell BG, Murray A, Peck L, Rogers A, Shoplock B, Smith KE, Steffel B, Stukel M, Sweetman A, Taylor M, **Thurber AR**, Truffer M, van de Putte A, Vanreusel A, Zamora-Duran A. 2020. Antarctic Ecosystem Responses following Ice Shelf Collapse and Iceberg Calving: Science Review and Future Research. *WIREs Climate Change*. doi.org/10.1002/wcc.682
7. **Thurber AR**, Seabrook S*, Welsch R*. 2020. Riddles in the Cold: Antarctic Endemism and Microbial Succession impact methane cycling in the Southern Ocean. *Proceedings of the Royal Society - Biology*. **287**: 20201134. doi.org/10.1098/rspb.2020.1134
8. Darr K*, East JL, Seabrook S*, Dundas SJ, **Thurber AR.** 2020. The Deep Sea and Me: Using a Science Center Exhibit to Promote Lasting Public Literacy and Elucidate Public Perception of the Deep Sea. *Frontiers of Marine Science.* doi.org/10.3389/fmars.2020.00159
9. Seabrook S*, De Leo F, **Thurber AR**. 2019. Exporting methane seep production to margins and people: The use of a methane seep by Tanner Crabs (*Chionoecetes tanneri*). *Frontiers of Marine Science.* 10.3389/fmars.2019.00043.
10. Seabrook S*, De Leo F, Baumberger T, Raineault N, **Thurber AR**. 2018. Heterogeneity of methane seep biomes in the Northeast Pacific. *Deep-Sea Research II*, doi.org/10.1016/j.dsr2.2017.10.016.
11. Graw MF*, D'Angelo G≈, Borchers M≈, **Thurber AR,** Johnson JE, Zhang C, Liu H, Colwell FS. 2018. Energy gradients structure microbial communities across sediment horizons in deep marine sediments. *Frontiers in Marine Science.* doi.org/10.3389/fmicb.2018.00729
12. Sweetman AK, **Thurber AR**, Smith CR, Levin LA, Mora C, Wei C-L, Gooday AJ, Jones DOB, Rex M, Yasuhara M, Ingels J, Ruhl HA, Frieder CA, Danovaro R, Würzberg L, Baco A, Grupe BM, Pasulka A, Meyer KS, Dunlop KM, Henry L-A, Roberts JM. 2017. Major impacts of climate change on deep-sea benthic ecosystems. *Elementa* 5: http://doi.org/10.1525/elementa.203
13. Galloway A, Shanks A, Groth S, Marion S, **Thurber AR**. 2017. Massive crab recruitment events to the shallow subtidal zone. *Ecology* 98: 1468-1470.

14. Hansman R, **Thurber AR**, Levin LA, Aluwihare LI. 2017. Methane fates in the benthos and water column at cold seep sites along the continental margin of Central and North America. *Deep-Sea Research I.* 120:122-131
15. Vega Thurber R, Payet J, **Thurber AR**, Correa A. 2017. Virus-host interactions and their roles in coral reef health and disease. *Nature Reviews in Microbiology*. 15: 205-216.
16. Smith AR*, Fisk MR, **Thurber AR**, Flores GE, Mason OU, Popa R, Colwell FS. 2017. Microbial communities in the Juan de Fuca ridge's oceanic crustal aquifer are governed by mineralogy. *Geomicrobiology*. 34:147-156. DOI:10.1080/01490451.2016.1155001
17. Levin LA, Baco AR, Bowden D, Colaço, Cordes E, Cunha MR, Demopoulus A, Gobin J, Grupe B, Le J, Metaxas A, Netburn A, Rouse GW, **Thurber AR**, Tunnicliffe V, Van Dover C, Vanreusel A, Watling L. 2016. Hydrothermal vents and methane seeps: Rethinking the sphere of influence. *Frontiers in Marine Science* dx.doi.org/10.3389/fmars.2016.00072
18. Leduc D, Rowden AA, Clark MR, Bowden DA, **Thurber AR**. 2016. Limited among-habitat differences in the deep-sea macro-infaunal communities off New Zealand: implications for their vulnerability to anthropogenic disturbance. *Marine Ecology. 37:845-866.* 10.1111/maec.12363
19. Verba C, **Thurber AR**, Alleau Y, Koley D, Colwell F, Torres M. 2016. Mineral changes in cement-sandstone matrices induced by biocementation. *International Journal of Greenhouse Gas Control* 49:312-322
20. Harris D ≈, Ummadi J ≈, **Thurber AR**, Alleau Y, Verba C, Colwell F, Torres M, Koley D. 2016. Real-time monitoring of calcification process by *Sporosarcina pasteurii* biofilm. *Analyst* 141:2887-2895.
21. Correa A, Ainsworth T, Rosales S*, **Thurber AR,** Butler CR, Vega Thurber RV. 2016. Cryptic viral outbreak in Corals driven by an in situ bleaching event: atypical herpes like viruses and a new Megavirus infecting *Symbiodinium*. *Frontiers in Microbiology.* 7:127 10.3389/fmicb.2016.00127
22. Levin LA, Mendoza GF, Grupe B, Gonzalez JP, Jellison B, Rouse G, **Thurber AR**, Waren A. 2015. Biodiversity on the Rocks: Macrofauna inhabiting authigenic carbonate at Costa Rica methane seeps. *PLoS ONE. DOI: 10.1371/journal.pone.0131080*
23. Bryson S*, **Thurber AR**, Correa A, Orphan VJ, Vega Thurber R. 2015. A novel sister clade to the enterobacteria microviruses (family *Microviridae*) identified in methane seep sediments. *Environmental Microbiology* 17:3708-3721. doi: 10.1111/1462-2920.12758.
24. **Thurber AR**. 2015. Diet-dependent incorporation of biomarkers: Implications for food-web studies using stable isotope and fatty acid analyses with special application to chemosynthetic environments. *Marine Ecology* 36:1-17.
25. Marlow J, Steele J, Ziebis W, **Thurber AR**, Levin LA, Orphan VJ. 2014. Carbonate hosted methanotrophy: An unrecognized methane sink in the deep sea. *Nature Communications* 5: 5094.
26. **Thurber AR**, Sweetman AK, Narayanaswamy BE, Jones DOB, Ingels J, Hansman RL. 2014. Ecosystem function and services provided by the deep sea. *Biogeosciences* 10:10193-18240
27. Zepata-Hernández G, Sellanes J, **Thurber AR**, Levin LA. 2014. Trophic structure of the bathyal benthos at an area with evidence of methane seep activity off southern Chile (~45ºS), *Journal of the Marine Biological Associate of the United Kingdom*, 94:659-669.
28. Zepata-Hernández G, Sellanes J, **Thurber AR**, Chazalon F, Levin LA, Linke P. 2014. New insights on the trophic ecology of bathyal communities from the methane seep area off Concepción, Chile (~36º S). *Marine Ecology* DOI: 10.1111/maec.12051.
29. **Thurber AR**, Levin LA, Rowden AA, Kröger K, Linke P, Sommer S. 2013. Microbes, Macrofauna, and Methane: The importance of aerobic methanotrophy in fueling a high-biomass, methane seep infaunal community. *Limnology and Oceanography* 5 8:1640-1656.
30. Mora C, Rollo A, Amaro T, Baco AR, Chen Q, Collier M, Danovaro R, Gooday AJ, Grupe B, Halloran PR, Ingels J, Jones DOB, Levin LA, Nakano H, Norling K, Ramirez-Llodra E, Ruhl HA,

Smith CR, Sweetman AK, **Thurber AR**, Tjiputra JF, Usseglio P, Watling L, Wei C-L, Wu T, Yasuhara M. 2013. Projected climate change in the ocean and its impact upon marine biota and people. *PLoS Biology* 11(10): e1001682.

31. Bowden DA, Rowden AA, **Thurber AR**, Baco A, Levin LA, Smith CR. 2013. Cold seep epifaunal communities on the Hikurangi Margin, New Zealand: composition, succession, and vulnerability to human activities. *PLoS ONE* 8(10): e76869.
32. Dayton PK, Kim S, Jarrell SC, Oliver JS, Hammerstrom K, Fisher JL, O'Connor K, Barber JS, Robilliard G, Barry J, **Thurber AR**, Conlan K. 2013. Recruitment, Growth and Mortality of an Antarctic Hexactinellid Sponge, *Anoxycalyx joubini*. *PLoS ONE. 8(2): e56939. doi:10.1371/journal.pone.0056939*
33. Levin LA, Ziebis W, Mendoza G, Bertics VJ, Washington T, Gonzalez J, **Thurber AR,** Ebbe B, Lee RW. 2013. Ecological Release and Niche Partitioning Under Stress: Lessons from Dorvilleid Polychaetes in Sulfidic Sediments at Methane Seeps. *Deep-Sea Research II.* 92:217-233.
34. Blackman DK, Appelgate B, German CR, **Thurber AR**, Henig AS. 2012. Axial Morphology along the Southern Chile Rise. *Marine Geology* 315-318: 58-63.
35. Vega Thurber R, Burkepile DE, Shantz AA, Welsh R, Correa AMS, Pritchard C, **Thurber AR,** Rosales S. 2012. Macroalgae decrease growth and alter bacterial community structure of the scleractinian coral, *Porites astreoides*. *PLoS ONE* 7: e44246. doi:10.1371/journal.pone.0044246
36. **Thurber AR**, Levin LA, Orphan VJ, Marlow J. 2012. Archaea in the diet of Metazoans: Implications for Chemosynthetic Ecosystems. *ISME J* 6:1602-1612.
37. Bernardino AF, Levin LA, **Thurber AR,** Smith CR**.** 2012. Comparative composition, diversity and trophic ecology of sediment macrofauna at vents, seeps and organic falls. *PLoS ONE* 7: e33515. doi:10.1371/journal.pone.0033515
38. **Thurber AR**, Jones WJ, Schnabel K. 2011. Dancing for food in the deep sea: Bacterial farming by a new species of Yeti crab. *PLoS ONE*. 6(11):e26243. DOI:10.1371/journal.pone.0026243
39. Kim S, Hammerstom KK, Conlan KE, **Thurber AR.** 2010. Polar ecosystem dynamics: Recovery of communities from organic enrichment in McMurdo Sound, Antarctica. *Integrative and Comparative Biology*. 50:1031-1040.
40. Conlan KE, Kim SL, **Thurber AR**, Hendrycks E. 2010. Benthic changes at McMurdo Station, Antarctica, following local sewage treatment and regional iceberg-mediated productivity decline. *Marine Pollution Bulletin* 60: 419- 432.
41. **Thurber AR**, Kröger K, Neira C, Wiklund H, Levin LA. 2010. Stable isotope signatures and methane use by New Zealand cold seep benthos. *Marine Geology* 272:260-269.
42. Levin LA, Mendoza G, Gonzalez J, McMillan P, **Thurber AR**. 2010. Diversity of bathyal macrobenthos on the northeastern Pacific margin: the influence of methane seeps and oxygen minimum zones. *Marine Ecology* 34: 94-110.
43. Glover AG, Smith CR, Minks SL, Sumida PY, **Thurber A**. 2008. Macrofaunal abundance and composition on the West Antarctic Peninsula continental shelf: Evidence for a sediment 'food bank'and similarities to deep-sea habitats. *Deep-Sea Research II* 55:2491-2501.
44. **Thurber AR**. 2007. Diets of Antarctic sponges: links between the pelagic microbial loop and benthic metazoan food web. *Marine Ecology Progress Series* 351:77-89.
45. Kim SL, **Thurber A**, Hammerstrom K, Conlan K. 2007. Seastar response to organic enrichment in an oligotrophic polar habitat. *Journal of Experimental Marine Biology and Ecology* 346:66-75.
46. Kim SL and **Thurber A**. 2007. Comparison of seastar (Asteroidea) fauna across island groups of the Scotia Arc. *Polar Biology* 30:415-425.
47. Detrich HW, Jones CD, Kim S, North AW, **Thurber A,** Vacchi M. 2005. Nesting behavior of the icefish *Chaenocephalus aceratus* at Bouvetoya Island, Southern Ocean. *Polar Biology* 28:828-832.

*"Peer-Reviewed Book Chapters"*

**Thurber AR** and Netburn A. 2020. The deep ocean's link to culture and global processes: Non-extractive value of the deep sea. In: Baker M, Ramirez-Llondra E, Tyler PA (eds) *Natural Capital and Exploitation of the Deep Sea*. Oxford University Press.

*"Invited Peer-Reviewed Companion Articles"*

**Thurber AR**. 2015. In Focus: The crabs that live where the hot and cold collide. Companion article for Marsh, L, Copley JT, Tyler PA & Thatje S. 2015. In hot and cold water: differential life-history traits are key to success in contrasting thermal deep-sea environments. *Journal of Animal Ecology* 84: 889-891.

## Courses Taught

[+]denotes a course developed by Thurber; *denotes a course adapted to eFormat; [‡]denotes virtual delivery due to COVID

MB302: General Microbiology (SP2017, SP2019)
MB314: Aquatic Microbiology[+] (W2018, W2019, [‡]SP2020, [‡]SP2021)
MB422: Aquatic Microbiology Laboratory[+] (SP2018, SP2019)
MB512: Highlights of Microbiology (W2017, SP2019, SP2019, W2020, [‡]W2021, W2022)
OC 103: Explorations of the Deep (SP2016)
OC 201e: eCampus - Introduction to Oceanography* (SP2015 & SP2016).

## OSU Graduate Students Mentored:

Sarah Seabrook (PhD OEB/CEOAS; 2015 – 2019)
Katie McConnell (MSc– Microbiology; 2017- 2019))
Katie Darr (MSc- Marine Resource Management/CEOAS; 2017-2019)
Erica (Rickie) Ewton (Accelerated Masters in Microbiology; 2019- 2021)
Susie Cummings (PhD Microbiology; Fall 2019 – Winter 2022)
Lila Ardor Bellucci (MSc 2020-Current)

## Select Recent University Service

**2022 (current):** Collaborative Innovation Complex Steering Committee
**2021-2024:** Faculty Steering Committee of the Center for Quantitative Life Sciences
**2021-2025:** College of Science, Equity Access and Inclusion Leadership Council member
**2020-2021:** College of Science Research Council Member
**2020- current:** Safety Committee (CEOAS)
**2019- current:** *Chair* of Microbiology Scholarship Committee. (Microbiology)
**2017- current:** Microbiology Scholarship Committee. (Microbiology)
**2013- current:** Dive Safety Control Board Member (University)

## Service to the Profession/Nation

National Service

**2022-2025:** ***Chair*** University National Ocean Laboratory System (UNOLS) Deep Submergence Science Committee and DeSSC committee representative on the UNOLS Council.
**2018-2024:** UNOLS Deep Submergence Science Committee Member.
**2020-current**: Mo'orea Long Term Ecological Research Diving and Small Boats Board Member
**2019-2025:** Ecosystem Advisory Subpanel Member. Pacific Fishery Management Council

Associate Editor

*Frontiers in Ecology and Evolution and Marine Science/ Deep-Sea Environments and Ecology* – 2019 – current
*Biogeosciences* (Associate Editor) – 2021-current

Reviewer: for **23** Journals and **7** Funding Agencies including 4 Directorates at the National Science Foundation

## Select science focused interviews and presentations for outreach

2021 – Hydrothermal Vents Professional Development – Lecture for Washington Science Teachers. Guest Lecturer (With L. Ardor Bellucci)
2020 – Deep Ocean Stewardship Initiative - Mini-Course on the Deep Sea, Humans, and Management for University of the South Pacific, Fiji - *Functions and services of the deep sea.* Guest Lecturer.
2020 – Next on Nautilus: Microbes, Methane, and Medicine from the Deep Sea - Currently Viewed >10k times
2020 – NOAA Ocean Exploration and Research Website
2020 – Live Streamed Research Cruise – NA-121 – Nautiluslive.org
2020 – Radio Interview for XM Radio – Top of Mind, BYU
2020 – Radio Interview Irish radio – NewsTalk
2020 – Austrian Broadcast Company Interview
2020 – "Project Blue" Internet Presentation and Question and Answer Period
2019 – Radio Interview Coral bleaching event underway in French Polynesia despite no El Nino – Australia Broadcasting Company
2019 – Radio Interview: Think Out Loud – Methane Crabs – Oregon Public Broadcasting
2019 – Press about research: Snow Crabs Snack at Methane Seeps – Corvallis Advocate
2019 – Presentation to Hatfield Marine Science Visitor Center Volunteers - Gleneden Beach.
2019 – Advisor for BBC "*Frozen Planet II"*.
2018 – Created an Outreach Display at the Hatfield Marine Science Center Visitor Center.
2018 – Public presentation: *Science on Tap*, Newport, OR.
2018 – Testified at the Pacific Marine Fisheries Council on Deep Sea Ecosystems, Portland, WA.
2018 – Public Presentation OSU 150 display at Hatfield Marine Science Center (1100 visitors)
2017 – Press about research: Methane Munching Microbes – The Antarctic Sun, United States Antarctic Program
2017 – Research highlighted in The Blue Planet II – the Prequal – BBC
- I provided scientific guidance on the content of the deep-sea episode and sailed on an expedition that filmed for this series.

2017 – Student outreach – Corvallis Montessori School, Corvallis, OR.
2017 – Donor event at the Mirabella, Portland, OR.
2016 – Press about research: Deep-Sea Hydrothermal Vents Play A Vital Role In Maintaining Global Climate – IFL science
2016 – Testified at the Pacific Marine Fisheries Council on Deep Sea Ecosystems, Vancouver, WA.
2015- Consortium of Ocean Leadership Ocean's Day "Twitter Event" – Tweets reached 394k accounts and received a 4.5M impression rating.
2015 – Conservation Voices: Q&A with Andrew Thurber – Pew Charitable Trusts
2015 – Testified at the Pacific Marine Fisheries Council on Deep Sea Ecosystems, Sacramento, CA
2015 – Filmed with BBC for "*Blue Planet II*"– (Note: Film included in "Prequal").
2015 – OSU *Science Pub* Speaker – Bend, OR.
2014 – Press about research: Microbial life discovered inside deep-sea rocks – IFL science
2014 – Press about research: The deep sea is vast, unexplored, and incredibly important – Washington Post
2014 – Press about research: Mining the bottom of the ocean is as bad for the environment as it sounds – Vice News – Motherboard
2014 - Press about research: From Finding Nemo to minerals: What riches lie in the deep sea? – Science Daily
2014 – OSU *Science Café* Speaker;
2013 – Quoted in and advised article in Scholastic Magazine (up to 22 million K-12 student readership)
2013 - 2x Wired Science Blog Interviews with >70k readership
2012-2013 – Research blog: 'Cold Dark Benthos' read by >2000 people/month from 65 countries.
2011- Interviewed on the Canadian Broadcast Company *Quirks and Quarks*