

Robert Levine

Education

- 2016–present **PhD, Oceanography**, *University of Washington*, Seattle, WA.
Chair: Daniel Grünbaum
- 2014 **MS, Geological Sciences**, *Cornell University*, Ithaca, NY.
Chair: Charles Greene
- 2012 **BS, Environmental Science**, *Cornell University*, Ithaca, NY.

Academic Positions

- 2016–present **Graduate Research Assistant**, *University of Washington School of Oceanography*, Seattle, WA.

Professional Positions

- 2014–2016 **Advanced Sampling Technology Contractor**, *Ocean Associates, Incorporated (Contracted to NOAA Alaska Fisheries Science Center)*, Seattle, WA.

Publications

- 2020 **Levine R**, De Robertis A, Grünbaum D, Woodgate R, Mordy C, Franz M, Cokelet E, Lawrence-Slavas N, Tabisola H. (2020). Autonomous vehicle surveys indicate that flow reversals retain juvenile fishes in a highly advective high-latitude ecosystem. *Limnology and Oceanography*. [dx.doi.org/10.1002/lno.11671](https://doi.org/10.1002/lno.11671).
- 2020 **Levine R**, Fogaren KE, Rudzin JE, Russoniello CJ, Soule DC, Whitaker JM. (2020). Open data, collaborative working platforms, and interdisciplinary collaboration: building an Early Career Scientist community of practice to leverage Ocean Observatories Initiative data to address critical questions in marine science. *Frontiers in Marine Science*. [dx.doi.org/10.3389/fmars.2020.593512](https://doi.org/10.3389/fmars.2020.593512).
- 2020 **Levine R**, Seroy S, Grünbaum D. (2020). Sound and the Seafloor: Determining bathymetry using student-built acoustic sensors. *Oceanography*. [dx.doi.org/10.5670/oceanog.2020.305](https://doi.org/10.5670/oceanog.2020.305).
- 2020 Huntington HP, Danielson SL, Wiese FK, Baker M, Boveng P, Citta JJ, De Robertis A, Dickson DM, Farley E, George JC, Iken K, Kimmel DG, Kuletz K, Ladd C, **Levine R**, Quakenbush L, Stabeno P, Stafford KM, Stockwell D, Wilson C. (2020). Evidence suggests potential transformation of the Pacific Arctic ecosystem is underway. *Nature Climate Change*. [dx.doi.org/10.1038/s41558-020-0695-2](https://doi.org/10.1038/s41558-020-0695-2).
- 2018 De Robertis A, **Levine R**, Wilson CD. (2018). Can a bottom-moored echo sounder array provide a survey-comparable index of abundance? *Canadian Journal of Fisheries and Aquatic Sciences* 75:629–640. [dx.doi.org/10.1139/cjfas-2017-0013](https://doi.org/10.1139/cjfas-2017-0013).

Non-refereed

- 2020 **Levine R.** (2020). Environmental drivers of pelagic fish distribution in the U.S. continental shelf region of the Chukchi Sea. *Electronic Journal of Applied Multivariate Statistics* 10:51–65. hdl.handle.net/1773/19723.
- 2014 **Levine R.** (2014). Temporal and Spatial Variability in Euphausiid Abundance, Biomass, and Species Composition at the Northwest Atlantic Shelf Break and Its Canyons (Thesis). *Cornell University*. hdl.handle.net/1813/38916.

Invited Presentations

- 2020 Wind, Waves, and (W)robots: Autonomous vehicle surveys of Arctic cod in the Chukchi Sea. Program on Climate Change Spring Symposium Series, University of Washington, Seattle, WA. May 2020.
- 2019 Are age-0 Arctic cod retained over the Chukchi Sea shelf during summer? NOAA EcoFOCI 2019 Fall Seminar Series, Seattle, WA. November 2019.

Departmental Seminars

- 2019 Are age-0 Arctic cod retained over the Chukchi Sea shelf during summer? UW Biological Oceanography Lunch Seminar Fall Seminar Series, Seattle, WA. November 2019.
- 2018 The role of the Chukchi Sea as a nursery for Arctic cod (*Boreogadus saida*). UW Biological Oceanography Lunch Seminar Fall Seminar Series, Seattle, WA. December 2018.
- 2018 Does the Chukchi Sea Serve as a Nursery for Arctic Fishes? UW Biological Oceanography Lunch Seminar Fall Seminar Series, Seattle, WA. January 2018.
- 2017 Does the Chukchi Sea Serve as a Nursery for Arctic Fishes? UW Oceanography Second Year Symposium, Seattle, WA. November 2017.

Conference Abstracts

- 2021 **Levine R**, De Robertis A, Grünbaum D, Wilson C, Farley E, Mordy C, Stabeno P. Where do they come from, and where do they go? Abundance, distribution, and transport of age-0 gadids on the Chukchi shelf. Alaska Marine Science Symposium, *Virtual*. January 2021.
- 2021 Cooper D, Logerwell E, Emelin P, Cieciel K, **Levine R**, Axler K, Britt L, Woodgate R, Orlov A. Pacific cod or Treska (*Gadus macrocephalus*) in the Chukchi Sea. Alaska Marine Science Symposium, *Virtual*. January 2021.
- 2020 Esparza J, Seroy S, **Levine R**, Wyte A, Crouser D, Clay Burns T, Grünbaum D. The PublicSensors Project: Fostering community science through student-built environmental sensors. SCCS-NY, New York, NY. October 2020.
- 2020 **Levine R**, De Robertis A, Wilson C, Grünbaum D, Farley E. Preliminary results of a 2019 acoustic-trawl survey in the U.S. Continental Shelf Region of the Chukchi Sea. Alaska Marine Science Symposium, Anchorage, AK. February 2020.
- 2020 **Levine R**, De Robertis A, Grünbaum D, Woodgate R, Mordy C, Cokelet E, Lawrence-Slavas N, Tabisola H. Summer 2018 repeat autonomous vehicle surveys indicate age-0 Arctic cod are largely retained over the Chukchi Sea shelf. Alaska Marine Science Symposium, Anchorage, AK. February 2020.

- 2020 **Levine R**, De Robertis A, Grünbaum D, Woodgate R, Mordy C, Cokelet E, Lawrence-Slavas N, Tabisola H. Summer 2018 repeat autonomous vehicle surveys indicate age-0 Arctic cod are largely retained over the Chukchi Sea shelf. Ocean Sciences, San Diego, CA. February 2020.
- 2020 Cooper D, Cieciel K, Logerwell E, Ferm N, **Levine R**, Lauth R, Britt L, Ciannelli L. Distribution and Diet of age-0 Pacific Cod in the Chukchi Sea in 2012 and 2017. Alaska Marine Science Symposium, Anchorage, AK. February 2020.
- 2019 Stopa J, Fogaren K, Kupchik MJ, **Levine R**, Philip BT, Rudzin JE, Russoniello CJ, Whitaker J. The Ocean Observatories Initiative: a catalyst for early-career, interdisciplinary research. OceanObs, Honolulu, HI. September 2019.
- 2019 Deemer G, Lyons A, Bassett C, **Levine R**. Characterizing the high-frequency acoustic response from sea ice over one season of natural environmental forcing in the Chukchi Sea. Underwater Acoustics Conference and Exhibition, Hersonissos, Crete. July 2019.
- 2019 **Levine R**, De Robertis A, Wilson C, Grünbaum D, Mordy C, Meinig C, Tabisola H. Observations of Fishes in the U.S. Continental Shelf Region of the Chukchi Sea from Autonomous Vehicles and Moorings. Alaska Marine Science Symposium, Anchorage, AK. January 2019.
- 2018 **Levine R**, De Robertis A, Wilson C, Farley E, Grünbaum D. Field Studies to Investigate the Fate of Juvenile Arctic Cod in the U.S. Continental Shelf Region of the Chukchi Sea. Ecosystem Studies of Subarctic and Arctic Seas Annual Science Meeting, Fairbanks, AK. June 2018.
- 2018 **Levine R**, De Robertis A, Wilson C, Farley E. Field Studies to Investigate the Fate of Juvenile Arctic Cod in the U.S. Continental Shelf Region of the Chukchi Sea. Alaska Marine Science Symposium, Anchorage, AK. January 2018.
- 2017 De Robertis A, **Levine R**, Wilson C. Can a bottom-moored echosounder array provide a survey-comparable index of abundance? ICES WGFASST Annual Meeting, Nelson, New Zealand. April 2017.
- 2014 **Levine R**, Lawson GL, Wiebe PH, Lavery AC, Greene CH, Copley NJ. Temporal and spatial variability in euphausiid abundance and species composition at the northwest Atlantic shelf break and its canyons. Ocean Sciences, Honolulu, HI. February 2014.
- 2011 Ceperley E, Delatolas N, L D, Huth A, **Levine R**, Mnich M, Moore A, Webster D, Yost J. The Carbon-Neutral Classroom: A User's Guide. Geological Society of America Meeting, Minneapolis, MN. November 2011.

Teaching Experience

- Winter 2019 **Guest Lecturer**, *Foundations of Ocean Sensors*, UW School of Oceanography. Microcontroller activity to measure speed of sound and conduct bathymetric survey.
- Spring 2018 **Guest Lecturer**, *Marine Zooplankton Ecology*, UW School of Oceanography. Application of active acoustics for zooplankton ecology.
- Winter 2018 **Teaching Assistant**, *Foundations of Ocean Sensors*, UW School of Oceanography. Assisted with course activities and designed module using ultrasonic acoustic sensors.
- Fall 2013 **Teaching Assistant**, *Introductory Oceanography*, Cornell University. Designed and led laboratory sections, assisted with design and grading of lecture component.
- Summer 2013 **Teaching Assistant**, *Marine Bioacoustics Workshop*, Friday Harbor Laboratories. Classroom and field assistant, guest lecturer for forward calculations and vessel calibration.

- Summer 2013 **Teaching Assistant**, *Satellite Remote Sensing Training Program*, Cornell University. Assisted with computer-based exercises using NASA SeaDAS and Python.
- Fall 2012 **Teaching Assistant**, *Introductory Oceanography*, Cornell University. Designed and led laboratory sections, assisted with design and grading of lecture component.
- Summer 2011 **Teaching Assistant**, *Satellite Remote Sensing Training Program*, Cornell University. Assisted with computer-based exercises using NASA SeaDAS and IDL.

Funding and Grants

- 2020 Diversity Funding Award, *UW College of the Environment*
- 2014 Graduate Conference Grant, *Cornell University*

Awards and Honors

- 2020 Best Student Poster Presentation, *Alaska Marine Science Symposium*
- 2018 Science Communication Fellow, *Pacific Science Center*
- 2014 Bryan Isaacks Excellence in Teaching Award, *Cornell University*

Authored Software and Datasets

- 2020 **Levine R**, Fogaren KE, Rudzin J, Russoniello C, Soule D, Whitaker JM. (2020). Software, data, and additional documentation for: Open data, collaborative working platforms, and interdisciplinary collaboration (v1.0). [dx.doi.org/10.5281/zenodo.4150102](https://doi.org/10.5281/zenodo.4150102).

Workshops and Training Courses

- 2020 OceanHackWeek 2020, University of Washington, WA
- 2019 Principles and Methods of Broadband/Wideband Technologies ICES Training Course, Bergen, Norway
- 2019 OOI Data Labs Development Workshop, Pacific Grove, CA
- 2019 OOI Early Career Scientist Interdisciplinary Workshop, Washington, D.C.
- 2018 OOI Early Career Biology Data Workshop, Rutgers University, NJ
- 2018 UW Cabled Array Hack Week, University of Washington, WA
- 2011 Bioacoustical Oceanography Workshop, Friday Harbor Laboratories, WA

Outreach

- 2020–present **PublicSensors.org** Educational initiative providing kits and instruction for hands-on learning with microcontroller-based environmental sensors.
- August 2020 **Meet a Scientist**, *Pacific Science Center Camps for Curious Minds*, Seattle, Wa.
- 2018–present **Meet a Polar Scientist**, *Pacific Science Center*, Seattle, Wa. Present ecology and dynamics of the Pacific Arctic as part of a live planetarium show titled "Pole to Pole".
- May 2019 **UW College of the Environment Open House** Co-lead table activity demonstrating microcontroller-based marine sensors.
- May 2018 **Ocean Sensors in High School Classrooms** Guest teacher in six high school chemistry classes in which the students use photospectrometry to explore changes in pH.
- March 2018 **Polar Science Weekend**, *Pacific Science Center*, Seattle, Wa. Manned booth of hands-on activities exploring microbial life in sea ice.

December **Ocean Sensors in High School Classrooms** Guest teacher in two high school oceanog-
2017 raphy classes in which the students use photospectrometry to explore changes in pH.

Service

University

2020 Series Organizer, UW College of the Environment Beyond Academia Speaker Series
2019–2020 UW College of the Environment Student Advisory Council Graduate Senate Liason
2018–2020 Elections Committee, *UW Graduate and Professional Student Senate*
2017–2020 School of Oceanography Senator, *UW Graduate and Professional Student Senate*
2018–2019 Officer, *UW Academic and Recreational Graduate Oceanographers*

Conferences

2019 Session chair of "Arctic Fishes & Fish Habitat" at Alaska Marine Science Symposium, Anchorage, AK.

Field Experience

2019 **R/V Ocean Starr**, *NPRB Arctic IERP*, 40 days, Chukchi and Beaufort Seas.
2018 **USCGC Healy**, *DBO-NCIS Program*, 19 days, Chukchi and Beaufort Seas.
2017 **R/V Ocean Starr**, *NPRB Arctic IERP*, 36 days, Chukchi and Beaufort Seas.
2016 **NOAAS Oscar Dyson**, *Pollock Acoustic-Trawl Survey*, 40 days, Bering Sea.
2015 **NOAAS Oscar Dyson**, *Pollock Acoustic-Trawl Survey*, 77 days, Gulf of Alaska.
2014 **NOAAS Oscar Dyson**, *Pollock Acoustic-Trawl Survey*, 38 days, Bering Sea.
2014 **R/V Tioga**, *WHOI OAPS*, 4, Gulf of Maine.
2013 **R/V Centennial**, *FHL Bioacoustics Workshop*, 2, Puget Sound.
2012 **R/V New Horizon**, *WHOI OAPS*, 13 days, Northeast Pacific.
2011 **R/V Centennial**, *FHL Bioacoustics Workshop*, 2 days, Puget Sound.