# Robert Levine

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Education

2016-present PhD, Oceanography, University of Washington School of Oceanography, 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

In Preparation

Levine R, De Robertis A, Grünbaum D, Woodgate R, Mordy C, Franz M, Cokelet E, Lawrence-Slavas N, Tabisola H. (In preperation). Repeat autonomous vehicle surveys indicate that age-0 Arctic cod are largely retained over the Chukchi Sea shelf.

Peer-reviewed

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. doi:10.1038/s41558-020-0695-2.

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. doi:10.1139/cjfas-2017-0013.

Non-refereed

Levine R. (2020). Repeat autonomous vehicle surveys indicate that age-0 Arctic cod are largely retained over the Chukchi Sea shelf. Electronic Journal of Applied Multivariate Statistics Accepted.

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*.

#### Invited Presentations

Are age-0 arctic cod retained over the chukchi sea shelf during summer? NOAA EcoFOCI 2019 Fall Seminar Series, Seattle, WA. November 2019.

Are age-0 arctic cod retained over the chukchi sea shelf during summer? Program on Climate Change Spring Symposium Series, University of Washington, Seattle, WA. May 2020.

#### Departmental Seminars

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.

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.

Does the chukchi sea serve as a nursery for arctic fishes? UW Biological Oceanography Lunch Seminar Fall Seminar Series, Seattle, WA. January 2018.

Does the chukchi sea serve as a nursery for arctic fishes? UW Oceanography Second Year Symposium, Seattle, WA. November 2017.

### Conference Abstracts

**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.

**Levine R**, De Robertis A, Wilson C, Farley E. Preliminary results of an 2019 acoustic-trawl survey in the U.S. Continental Shelf Region of the Chukchi Sea. Alaska Marine Science Symposium, Anchorage, AK. February 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.

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.

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.

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.

**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.

**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.

**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.

De Robertis A, **Levine R**, Wilson C. Can a bottom-moored echosounder array provide a survey-comparable index of abundance? ICES WGFAST Annual Meeting, Nelson, New Zealand. April 2017.

**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.

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

- May 2018 **Guest Lecturer**, *Marine Zooplankton Ecology*, UW School of Oceanography. Application of active acoustics for zooplankton ecology.
  - February Guest Lecturer, Foundations of Ocean Sensors, UW School of Oceanography.
    - 2018 Microcontroller activity to measure speed of sound and conduct bathymetric survey.
- 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

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

## Workshops and Training Courses

- 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

- 2018– **Meet a Polar Scientist**, *Pacific Science Center, Seattle, Wa.* Present ecology and ltextitpresent dynamics of the Pacific Arctic as part of a live planetarium show titles "Pole to Pole".
  - May 2018 **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

#### Department

- January UW College of the Environment Student Advisory Council Graduate Senate Liason 2019–present
- January Elections Committee, *UW Graduate and Professional Student Senate* 2019–present
- November School of Oceanography Senator, UW Graduate and Professional Student Senate 2017–present
  - 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.