

# Curriculum Vitae

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### Education

- Ph.D. 2007, Chemical Oceanography, University of Washington, Seattle, WA  
Dissertation: Assessment of Pacific Ocean Organic Carbon Production and Export Using Measurements of Dissolved Oxygen Isotopes and Oxygen/Argon Gas Ratios.  
Advisor: Paul Quay
- M.Sc. 2003, Chemical Oceanography, University of Washington, Seattle, WA
- B.S. 1999, Environmental Biology and Management (highest honors), University of California, Davis

### Professional Experience

- 2018-present Associate Professor, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University
- 2011-2018 Assistant Professor, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University
- 2009-2011 Research Scientist, Joint Institute for the Study of the Atmosphere and Ocean, University of Washington
- 2007-2009 National Research Council Postdoctoral Research Fellow, NOAA PMEL (Postdoctoral advisor: Richard Feely)
- 2000-2007 Graduate Research Assistant, University of Washington School of Oceanography
- 1999-2000 Lab Manager and Technician, Stable Isotope Laboratory, Department of Geology, University of California, Davis
- 1997-1999 Undergraduate Research Assistant, Stable Isotope Laboratory, Department of Geology, University of California, Davis

### Publications

- Juranek, L.W. (2022), Changing biogeochemistry of the Arctic Ocean: Surface nutrient and CO<sub>2</sub> cycling in a warming, melting north. *Oceanography*, <https://doi.org/10.5670/oceanog.2022.120>.
- Juranek, L.W., R.H. Stanley., and D.P. Nicholson (2022, in press), In situ Net Community Production with dissolved O<sub>2</sub>/Ar, in *IOCCG Protocol Series Volume 7.0, Aquatic Primary Productivity Field Protocols for Satellite Validation and Model Synthesis*, edited by R.A. Vandermeulen and J. Chaves, NASA Goddard Space Flight Space Center Greenbelt, MD.
- Stanley, R.H., L.W. Juranek, and D.P. Nicholson (2022, in press), In situ Gross Primary Production from Triple Oxygen Isotopes, in *IOCCG Protocol Series Volume 7.0, Aquatic Primary Productivity Field Protocols*

for *Satellite Validation and Model Synthesis*, edited by R.A. Vandermeulen and J. Chaves, NASA Goddard Space Flight Space Center Greenbelt, MD.

- Ferrón, S., and Juranek, L.W. (2022, in press), The H<sub>2</sub><sup>18</sup>O incubation method for the determination of gross oxygen production, in *IOCCG Protocol Series Volume 7.0, Aquatic Primary Productivity Field Protocols for Satellite Validation and Model Synthesis*, edited by R.A. Vandermeulen and J. Chaves, NASA Goddard Space Flight Space Center Greenbelt, MD.
- Goni, M.A., L.W. Juranek, R.E. Sipler, K.A. Welch, (2021), Particulate organic matter distributions in the water column of the Chukchi Sea during late summer, *J. Geophys. Res. Oceans*, 126, e2021JC017664. <https://doi.org/10.1029/2021JC017664>.
- Juranek\*, L.W., A.E. White\*, M. Dugenne, F. Henderikx-Freitas, S. Dutkiewicz, F. Ribalet., E.V. Armbrust, S. Ferron, E.V. Armbrust, D.M. Karl, (2020), The importance of the phytoplankton “middle class” to ocean net community production. *Global Biogeochemical Cycles*, 34, e2020GB006702. <https://doi.org/10.1029/2020GB006702>  
This publication received recognition as a Research Spotlight in EOS: Wheeling, K. (2021), The role of midsized phytoplankton in Earth’s biological pump, *Eos*, 102, <https://doi.org/10.1029/2021EO154314>. Published on 04 February 2021.
- Li, J. R.S. Pickart, P. Lin, F. Bahr, K.R. Arrigo, L. Juranek, and X. Yang (2020), The Atlantic water boundary current in the Chukchi Borderland and southern Canada Basin, *J. Geophys. Res.-Oceans*, 125, e2020JC016197. <https://doi.org/10.1029/2020JC016197>.
- Beaird, N., E. Shroyer, L. Juranek, B. Hales, and M. Goñi, (2020) Nutrient-rich dense gravity currents in Barrow Canyon formed by upwelling: high resolution observations, *J. Geophys. Res.-Oceans*, 125, e2020JC016160. <https://doi.org/10.1029/2020JC016160>.
- Danielson, S., and 25 co-authors including L. Juranek, (2020) Manifestation and consequences of warming and altered heat fluxes over the Bering and Chukchi Sea continental shelves, *Deep Sea Res. II*, [doi.org/10.1016/j.dsr2.2020.104781](https://doi.org/10.1016/j.dsr2.2020.104781).
- Goñi, M.A., E.R. Corvi, K.A. Welch, M. Buktenica\*\*, K. Lebon, Y. Alleau, L.W. Juranek (2019) Particulate Organic Matter Distributions in Surface Waters of the Pacific Arctic Shelf during the late Summer and Fall Season, *Marine Chemistry* 211, [doi:10.1016/j.marchem.2019.03.010](https://doi.org/10.1016/j.marchem.2019.03.010).
- Juranek, L.W., T. Takahashi, J.T. Mathis, and R. Pickart (2019), Significant biologically-mediated CO<sub>2</sub> uptake in the Pacific Arctic during the late open water season, *J. Geophysical Research – Oceans*, 124, [doi:10.1029/2018JC014568](https://doi.org/10.1029/2018JC014568).
- Williams, N.L.\*\*, L.W. Juranek, R.A. Feely, J.L. Russell, K.S. Johnson, B. Hales (2018) Assessment of the Carbonate Chemistry Seasonal Cycles in the Southern Ocean From Persistent Observational Platforms, *Journal of Geophys. Res. Oceans*, 123, <https://doi.org/10.1029/2017JC012917>.
- Martinez-Garcia, S., R.R. Bidigare, D.A. del Valle, L.W. Juranek, D.P. Nicholson, D.A. Viviani, S.T. Wilson, M.J. Church, (2018), Control of net community production by microbial community respiration at Station ALOHA, *Journal of Marine Systems*, 184, 28-35, [doi: 10.1016/j.jmarsys.2018.03.007](https://doi.org/10.1016/j.jmarsys.2018.03.007).
- Williams, N.L.\*\*, L.W. Juranek, R.A. Feely, K.S. Johnson, J.L. Sarmiento, L.D. Talley, A.G. Dickson, A.R. Gray, R. Wanninkhof, J.L. Russell, and S.C. Riser, (2017), Calculating surface ocean pCO<sub>2</sub> from biogeochemical Argo floats equipped with pH: An uncertainty analysis, *Global Biogeochem. Cycles*, 31, 591-604, [doi:10.1002/2016GB005541](https://doi.org/10.1002/2016GB005541).  
This publication received recognition as an Editor’s Highlight, and was featured in a Commentary authored by A. Olson ([doi:10.1002/2017GB005676](https://doi.org/10.1002/2017GB005676))
- Fassbender, A.J., H.I. Palevsky, T.R. Martz, A.E. Ingalls, M. Gledhill, S.E. Fawcett, J.A. Brandes, L.I. Aluwihare, and participants of COME ABOARD, DISCO XXV (2017), Perspectives on Chemical

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- Feely, R.A., S.R. Alin, B. Carter, N. Bednarek, B. Hales, F. Chan, T.M. Hill, B. Gaylord, E. Sanford, R.H. Byrne, C.L. Sabine, D. Greeley, and L. Juranek (2016), Chemical and biological impacts of ocean acidification along the west coast of North America, *Estuarine, Coastal, and Shelf Science* 183(A), 260-270 doi:10.1016/j.ecss.2016.08.043.
- Williams, N.J.\*\*; L.W. Juranek, K.S. Johnson, R.A. Feely, S.C. Riser, L.D. Talley, J.L. Russell, J. L. Sarmiento, and R. Wanninkhof (2016), Empirical algorithms to estimate water column pH in the Southern Ocean, *Geophys. Res. Lett.*, 43, doi:10.1002/2016GL068539.
- Oxtoby, L.E., J. T. Mathis, L.W. Juranek, and M.J. Wooller (2015), Estimating stable carbon isotope values of microphytobenthos in the Arctic for application to foodweb studies, *Polar Biology*, 39(3), 473-483, doi:10.1007/s00300-015-1800-2.
- Wilson, S.T., B. Barone, F. Ascani, R.R. Bidigare, M.J. Church, D.A. delValle, S.T. Dhyrman, S. Ferron, J.N. Fitzsimmons, L.W. Juranek, Z.S. Kolber, R.M. Letelier, S. Martinez-Garcia, D.P. Nicholson, K.J. Richards, Y.M. Rii, M. Rouco, D.A. Viviani, A.E. White, J. P. Zehr, and D. M. Karl (2015), Short-term variability in euphotic zone biogeochemistry and primary productivity at Station ALOHA: A case study summer 2012, *Global Biogeochem. Cycles*, 29, 1145-1164, doi:10.1002/2015GB005141.
- Munro, D.R, P.D. Quay, L.W. Juranek, and R. Goericke, (2013), Biological production rates off the Southern California Coast estimated from triple O<sub>2</sub> isotopes and O<sub>2</sub>:Ar gas ratios, *Limnol. and Oceanogr.*, 58(4), 1312-1328.
- Hauri, C., P. Winsor, L. Juranek, A.M.P. McDonnell, T. Takahashi, and J.T. Mathis (2013) Wind-driven mixing causes a reduction in the strength of the continental shelf carbon pump in the Chukchi Sea, *Geophys. Res. Lett.*, 40(22), doi: 10.1002/2013GL058267, 5932–5936.
- Juranek, L.W., and P.D. Quay (2013), Using triple isotopes of dissolved oxygen to evaluate global marine productivity, *Ann. Rev. Mar. Sci.*, 5, 503-524, doi:10.1146/annurev-marine-121211-172430.
- Lockwood, D., P.D. Quay, M.T. Kavanaugh, L.W. Juranek, and R.A. Feely (2012), High-resolution estimates of net community production and air-sea CO<sub>2</sub> flux in the northeast Pacific, *Global Biogeochem. Cycles*, 26, GB4010, doi:10.1029/2012GB004380.
- Juranek L.W., P.D. Quay, R.A. Feely, D. Lockwood, D.M. Karl, and M.J. Church, (2012) Biological production in the NE Pacific and its influence on air-sea CO<sub>2</sub> flux: evidence from dissolved oxygen isotopes and O<sub>2</sub> /Ar, *J. Geophys. Res. Oceans*, 117, C05022, doi:10.1029/2011JC007450.  
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- Alin, S.R., R.A. Feely, A.G. Dickson, J.M. Hernández-Ayón, L.W. Juranek, M.D. Ohman, and R. Goericke (2012), Robust empirical relationships for estimating the carbonate system in the southern California Current System and application to CalCOFI hydrographic cruise data (2005-2011), *J. Geophys. Res. Oceans*, doi:10.1029/2011JC007511.
- Mathis, J.T., R.S. Pickart, R.H. Byrne, C.L. McNeil, G.W.K. Moore, L.W. Juranek, S. Liu, J. Ma, R.A. Easley, M.M. Elliot, J.N. Cross, S.C. Reisdorph, F. Bahr, J. Morison, T. Lichendorf, R.A. Feely (2012), Storm-induced upwelling of high pCO<sub>2</sub> waters onto the continental shelf of the Western Arctic Ocean and implications for carbonate mineral saturation states, *Geophys. Res. Lett.* 39, L07606, doi:10.1029/2012GL051574.

- Juranek, L.W., R.A. Feely, D. Gilbert, H. Freeland, L. Miller (2011), Real-time estimation of pH and aragonite saturation state from Argo profiling floats: Prospects for an autonomous carbon observing strategy, *Geophys. Res. Lett.*, 38, L17603, doi:10.1029/2011GL048580
- Juranek, L.W., and P.D. Quay (2010) Basin-wide primary production rates in the subtropical and tropical Pacific Ocean determined from dissolved oxygen isotope ratio measurements, *Global Biogeochem. Cycles*, 24, GB2006, doi:10.1029/2009GB003492.
- Juranek, L.W., R. Hamme, J. Kaiser, R. Wanninkhof, and P.D. Quay (2010), Evidence of O<sub>2</sub> consumption in underway seawater lines - implications for air-sea O<sub>2</sub> and CO<sub>2</sub> fluxes, *Geophys. Res. Lett.*, 37, 1, doi:10.1029/2009GL040423.
- Juranek, L.W., R.A. Feely, W.T. Peterson, S.L. Alin, B. Hales, K. Lee, C.L. Sabine, J. Peterson (2009), A novel method for determination of aragonite saturation state on the continental shelf of central Oregon using multi-parameter relationships with hydrographic data, *Geophys. Res. Lett.*, 36, 24, doi:10.1029/2009GL040778.
- Ianson, D., R.A. Feely, C.L. Sabine, and L.W. Juraneck (2009), Features of coastal upwelling regions that determine net air-sea CO<sub>2</sub> flux, *Journal of Oceanography*, 65(5), 677-687.
- Quay, P.D., J. Stutsman, R.A. Feely, and L.W. Juraneck (2009), Net community production rates across the subtropical and equatorial Pacific Ocean estimated from air-sea δ<sup>13</sup>C disequilibrium, *Global Biogeochem. Cycles*, 23, GB2006, doi:10.1029/2008GB003193.
- Juranek, L.W. (2007), Assessment of Pacific Ocean Organic Carbon Production and Export Using Measurements of Dissolved Oxygen Isotopes and Oxygen/Argon Gas Ratios, University of Washington, Ph.D. Dissertation.
- Juranek L.W., and P.D. Quay (2005), In vitro and in situ gross primary and net community production in the North Pacific Subtropical Gyre using labeled and natural abundance isotopes of dissolved O<sub>2</sub>, *Global Biogeochem. Cycles*, 19, GB3009, doi:10.1029/2004GB002384.
- Juranek, L.W., A.D. Russell and H.J. Spero (2003), Seasonal oxygen and carbon isotope variability in Euthecosomatus pteropods from the Sargasso Sea. *Deep Sea Res. I* 50:231-245.

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## Submitted Manuscripts

- Cynar, H.\*\*, L.W. Juraneck, C.W. Mordy, and D. Strausz, High-resolution Biological Net Community Production in the Pacific-influenced Arctic as Constrained by O<sub>2</sub>/Ar and O<sub>2</sub>/N<sub>2</sub> Observations, submitted to Deep Sea Research II. *Feb 2022*.
- Park, J., B.P. Durham, R.S. Key, R.D. Groussman, P. Pinedo-Gonzalez, N.J. Hawco, S.G. John, M.C.G. Carlson, D. Lindell, L. Juraneck, S. Ferron, F. Ribalet, E.V. Armbrust, A.E. Ingalls, R.M. Bundy (2022). Siderophore production and utilization by microbes in the North Pacific Ocean. Submitted to *Limnology and Oceanography*, preprint at *BioRxiv*, 2022.02.26.482025. <https://doi.org/10.1101/2022.02.26.482025>.

## Manuscripts in Preparation

- Juranek, L.W., B. Hales, N. L. Beard, M.A. Goni, Subsurface productivity: a significant contribution to annual production in the Pacific-influenced Arctic, to be submitted to *J. Geophys. Res. Oceans* July 2022.

Juranek, L.W., S. Ferron, D.M. Karl, R. Foreman, K. Bjorkman, A. E. White, J. Allen, Productivity across oceanic transitions in the NE Pacific: surprising constancy of photosynthetic efficiency, to be submitted to *Global Biogeochem. Cycles*, summer 2022.

## Other Publications

Bingham, F., L. Juranek, M. Mazloff, G. McKinley, N. Nelson, S. Wijffels (2019), Review of US GO-SHIP (Global Ocean Shipboard Hydrographic Investigations Program) An OCB and US CLIVAR Report. Report 2019 (OCB) and 2019-6 (US CLIVAR).112pp. doi:10.1575/1912/24897

Wanninkhof, R., K. Johnson, N. Williams\*\*, J. Sarmiento, S. Riser, E. Briggs, S. Bushinsky, B. Carter, A. Dickson, R. Feely, A. Gray, L. Juranek, R. Key, L. Talley, J. Russell, and A. Verdy. (2016) An evaluation of pH and NO<sub>3</sub> sensor data from SOCCOM floats and their utilization to develop ocean inorganic carbon products. SOCCOM Carbon System Working Group white paper, [http://socom.princeton.edu/content/socom-publications#tec\\_rep](http://socom.princeton.edu/content/socom-publications#tec_rep) (to be assigned CDIAC and NOAA doi).

Alin, S.R., S. Siedlecki, B. Hales, J. Mathis, W. Evans, M. Stukel, G. Gaxiola-Castro, J.M. Hernandez-Ayon, L. Juranek, M. Goñi, G. Turi, J. Needoba, E. Mayorga, Z. Lachkar, N. Gruber, J. Hartmann, N. Moosdorf, R. Feely, and F. Chavez (2012): Coastal carbon synthesis for the continental shelf of the North American Pacific Coast (NAPC): Preliminary results. *Ocean Carbon and Biogeochemistry News*, 5(1), [http://www.us-ocb.org/publications/OCB\\_NEWS\\_WINTER12.pdf](http://www.us-ocb.org/publications/OCB_NEWS_WINTER12.pdf).

Sabine, C.L., L. Juranek, C. Lee, D. Nicholson, A. Ver (2004), Understanding North Pacific Carbon Cycle Changes, *Eos Trans. AGU*, 85(42), 419, 10.1029/2004EO420006.

## Archived Data Products with DOI:

Juranek, L. Surface underway dissolved O<sub>2</sub>/Ar and O<sub>2</sub> data collected in the Bering, Chukchi, and Beaufort Seas in October-November 2020 on SKQ202014S. Arctic Data Center. doi:10.18739/A23J3927R

Juranek, L.. Dissolved O<sub>2</sub> concentration and O<sub>2</sub>/N<sub>2</sub> saturation ratio in surface seawater measured in the Bering, Chukchi, and Beaufort Seas October-November, 2020. Arctic Data Center. doi:10.18739/A2ZS2KF2C

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Juranek, L.W.. (2020). MGL1704\_Gradients2\_Surface\_O2Ar\_NCP (1.1) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.4079505>

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Cynar, H., L. Juranek, C. Mordy, D. Strausz, and S. Bell. 2021. Underway O<sub>2</sub>/Ar (Oxygen/Argon) and oxygen data collected on a research cruise on the vessel Ocean Starr, Bering, Chukchi, and Beaufort Seas, Arctic Ocean, 2019. Arctic Data Center. doi:10.18739/A2RB6W376.

Cynar, H., L. Juranek, C. Mordy, D. Strausz, and S. Bell. 2021. Total dissolved gas pressure (TDGP) and O<sub>2</sub>/N<sub>2</sub> (Oxygen/Nitrogen) data collected on a research cruise on the vessel Ocean Starr, Bering, Chukchi, and Beaufort Seas, Arctic Ocean, 2019. Arctic Data Center. doi:10.18739/A24J09Z63.

Cynar, H., L. Juranek, C. Mordy, D. Strausz, and S. Bell. 2021. Discrete O<sub>2</sub>/Ar (Oxygen/Argon) and oxygen isotope data collected on a research cruise on the vessel Ocean Starr, Bering, Chukchi, and Beaufort Seas, Arctic Ocean, 2019. Arctic Data Center. doi:10.18739/A20R9M539.

Juranek, L.. 2019. Underway and bottle oxygen data collected on the Sikuliaq Research Vessel, Bering and Chukchi Seas, Alaska, 2017. Arctic Data Center. doi:10.18739/A26H4CQ72.

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Juranek, L., M. Goni, and B. Hales. 2019. Conductivity, temperature, and depth (CTD) data collected on the research vessel Sikuliaq, Northeast Chukchi and Western Beaufort Seas, 2016. Arctic Data Center. doi:10.18739/A2513TW2R.

Juranek, L. Underway O<sub>2</sub>/Ar (Oxygen/Argon) and O<sub>2</sub> isotope data collected on the Research Vessel Ronald H. Brown, Bering, Chukchi, and Beaufort Seas, Arctic Ocean, 2015. Arctic Data Center. doi:10.18739/A2P26Q39Q.

Juranek, L., 2017. Dissolved oxygen:argon gas ratio measured from the surface seawater flowthrough of USCGC Healy, October 2012. Arctic Data Center. doi:10.18739/A2HD7NT1Q.

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## Selected Published Conference Abstracts

- Juranek, L.W., B. Hales, N.L. Beard, M. Goni, E. Shroyer, Significant subsurface productivity in the Pacific Arctic: evidence from high resolution surveys, AGU/ASLO/TOS Ocean Sciences Meeting, 28 February- 4 March 2022 (virtual).
- Kavanaugh, M., J. Fisher, R. Cowen, S. Zeman, M. Schmid, S. Sponaugle, L. Juranek, K. Jacobsen, N. Adams, S. Moore, J. Waddell, J. Newton, Marine biodiversity observation network in the Northern California Current: Understanding patterns and drivers of biodiversity and ecosystem function from plankton to seascapes, AGU/ASLO/TOS Ocean Sciences Meeting, 28 February- 4 March 2022 (virtual).
- Cynar, H., L. Juranek, C. Mordy, D. Strausz, S. Bell High-resolution Biological Net Community Production in the Pacific-influenced Arctic as Constrained by O<sub>2</sub>/Ar and O<sub>2</sub>/N<sub>2</sub> Observations. AGU/ASLO/TOS Ocean Sciences Meeting, 28 February- 4 March 2022 (virtual).
- Goni, M.A., L. Juranek, R. Sipler and K. Welch Particulate Organic Matter Distributions in the Water Column of the Chukchi Sea During Late Summer. 2021 *Virtual Alaska Marine Science Symposium*, January 26-28, 2021.
- Juranek, L.W., A. White., M. Dugenne, S. Ferron, S. Dutkiewicz, D. Karl, High-resolution dissolved O<sub>2</sub>/Ar and optical scattering observations in the North Pacific subtropical/subpolar transition zone reveal contributions of small phytoplankton to oceanic net community production, Abstract CT14A-0837 presented at AGU/ASLO Ocean Sciences Meeting, San Diego, CA 16-21 February, 2020.
- Risien, C., R. Desiderio, L. Juranek, and J. Fram, Sustained, high-resolution profiler observations from the Washington Continental slope, Abstract IS43A-05 presented at AGU/ASLO Ocean Sciences Meeting, San Diego, CA 16-21 February, 2020.
- Li, J., R. Pickart, P. Lin, K. Arrigo, L. Juranek, J. Swift, F. Bahr, and Y. Xiao-Yi, The Atlantic water boundary current in the Chukchi Borderland and southern Canada Basin, Abstract HE14B-1936 presented at AGU/ASLO Ocean Sciences Meeting, San Diego, CA 16-21 February, 2020.
- Juranek, L.W., M. Goni, B. Hales, N. Beard, E. Shroyer, Stir it up: Responses of Western Arctic Biogeochemistry and Lower Trophic Level Productivity to Late Season Episodic Nutrient Inputs, AGU/ASLO Ocean Sciences Meeting, Portland, OR, 11 – 16 February, 2018.
- Goni, M.A., Juranek, L., Hales, B., Sipler, R.E., Bronk, D.A. Particulate organic matter distributions in the water column of western Arctic Ocean during late open-water season, Abstract HE14A-2822 presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 February, 2018.
- Hales, B.R., Goni, M.A., Beard, N., Juranek, L.W., and Shroyer, E. Late summer carbon and nutrient dynamics in Chukchi Sea shelf waters, Abstract HE13A-04 presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 February 2018.

- Juranek, L. W.; Goni, M.; Hales, B.; Sipler, R.; Bronk, D.; Late season community productivity in the Pacific Arctic: a nutrient, carbon, and dissolved gas perspective (Abstract ID: 29562), ASLO Meeting, Honolulu, HI, 26-Feb – 3 Mar, 2017.
- Sipler, R. E.; Bronk, D. A.; Juranek, L.; Goni, M.; Hales, B.; Spackeen, J. L.; Welch, K. A.; Stanley, B. C.; Impacts of late season drifting ice on water column physiochemistry (Abstract ID: 29705), ASLO Meeting, Honolulu, HI, 26-Feb – 3 Mar, 2017.
- Hales, B.; Lambert, S.; Jones, A.; Weekes, C.; Welch, K.; Craig, K.; Goni, M.; Juranek, L.; Sipler, R.; Bronk, D.; Carbon and nutrient-based evidence for late-season export productivity in the Chukchi Sea (Abstract ID: 29740), ASLO Meeting, Honolulu, HI, 26-Feb – 3 Mar, 2017.
- Juranek, L.W. (2016), Late season community-level production in the Western Arctic as constrained by high resolution observations of dissolved O<sub>2</sub>/Ar, Ocean Sciences Meeting, New Orleans, 21-26 February.
- Williams, N.L., L.W. Juranek, R.A. Feely, K.S. Johnson, J.L. Russell, Empirical algorithms to predict pH and aragonite saturation state on SOCCOM biogeochemical argo floats in the Pacific sector of the Southern Ocean, Ocean Sciences Meeting, New Orleans, 21-26 February .
- Juranek, L.W. (2014), Global variability in gross to net primary production ratio: physiological drivers, biases, and uncertainties. Ocean Sciences Meeting, Honolulu, 23-28 February.
- Feely, R.A., S.R. Alin, B.R. Hales, L. Juranek, D. Greeley (2012), The extent of ocean acidification on aragonite saturation state along the Washington\_oregon continental shelf margin in late summer 2012, Abstract OS51H-03 presented at 2012 Fall Meeting AGU, San Francisco, Calif., 3-7 Dec.
- Juranek, L., R.A. Feely, S.R. Alin, C. Meinig, and S.E. Stalin. 2012. Evaluating seasonal and event-scale effects of upwelling, biological production, and hypoxia on Central Oregon margin carbon chemistry using a coastal glider. Presented at 2012 Ocean Sciences Meeting, Salt Lake City, Utah.
- Juranek, L.W., R.A. Feely, S.R. Alin, 2011. Robust Prediction of North Pacific Carbon System Dynamics Using Empirical Relationships with Hydrographic Data. Presented at 2011 ASLO Aquatic Sciences Meeting, San Juan, Puerto Rico, 13-18 February
- Juranek, L.W., R.A. Feely, S.R. Alin, S.R. Emerson, and P. Quay, 2010. Robust Prediction of pH and Carbonate Mineral Saturation State in the North Pacific Ocean Using Empirical Relationships with Hydrographic Data. Abstract OS21D-1540 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Juranek, L.W., P.D. Quay, D.Lockwood\*, and F. Janny (2010), Biological Production and Export Rates Across the Subtropical and Subarctic North Pacific Determined by Oxygen Isotopes (<sup>17</sup>O) and the O<sub>2</sub>/Ar ratio, Eos Trans. AGU, 91(26), Ocean Sci Meet. Suppl., Abstract IT24D-03.
- Juranek, L.W., R.A. Feely, C.L. Sabine, P.D.Quay, D. Ianson, and S.R. Alin (2008), Determination of Biological Carbon Uptake on the North American West Coast Using Dissolved Oxygen Isotopes and the O<sub>2</sub>/Ar Gas Ratio, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS44A-05.
- Alin, S.R., R.A. Feely, C.L. Sabine, G.C. Johnson, L.W. Juranek, A.G. Dickson, K. Lee, A. Fassbender (2008), Reconstructing Aragonite Saturation States Along the California Coastline Using Chemical and Hydrographic Data, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS53C-1328.
- Feely, R.A., B. Hales, C.L. Sabine, D. Greeley, K. Lee, S.R. Alin , L.W. Juranek (2008), A New Proxy Method for Estimating the Aragonite Saturation State of Coastal Waters Using Chemical and Hydrographic Data, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS33E-03.
- Juranek, L.W., and P.D. Quay (2006), Determination of Gross Primary and Net Community Production Along a Repeated Pacific Ocean VOS Transect Using Measurements of Dissolved Oxygen Isotopes and O<sub>2</sub>/Ar Gas Ratios, Eos Trans. AGU, 87(36), Ocean Sci. Meet. Suppl., Abstract OS44G-02.
- Quay, P., L. Juranek, and F. Chen (2006) Gross Primary and Net Community Production Rates Inside and Outside Eddies off Hawaii Based on Isotopic Measurements of Dissolved Oxygen and Inorganic Carbon, Eos Trans. AGU, 87(36), Ocean Sci. Meet. Suppl., Abstract OS12H-03.
- Cosca, C., R.A. Feely, B. Tilbrook, P.D. Quay, D. Wisegarver, C. Wolfe, and L. Juranek (2006), First underway fCO<sub>2</sub> observations from the VOS container ship Columbus Waikato in the tropical and subtropical Pacific, Eos Trans. AGU, 87(36), Ocean Sci. Meet. Suppl., Abstract OS34J-03.
- Juranek, L.W., and P.D. Quay (2004), In Vitro and In Situ Primary Productivity in the North Pacific Subtropical Gyre as Determined by the Triple Isotope Composition of Dissolved O<sub>2</sub> <sup>18</sup>O<sub>2</sub> Labeling, and O<sub>2</sub>/Ar Gas Ratios, Eos Trans. AGU, 85(47), Fall Meet. Suppl., Abstract OS11C-03.
- Juranek, L., P.D. Quay, and D.M. Karl (2002), Primary Productivity rates at Station ALOHA determined by <sup>18</sup>O labeling and the triple isotope composition of dissolved oxygen, Eos Trans. AGU, 83(47), Fall Meet. Suppl., Abstract OS21B-0204.
- Juranek, L., A. D. Russell, and H. J. Spero (1999). Seasonal stable isotope variability in two euthecosomatous pteropods from the Sargasso Sea: Evidence of depth habitat change and environmental influence on shell carbon isotopes. Eos Trans. AGU, 80, Fall Meet. Suppl., Abstract OS22B-03, p. F521.
- H.J. Spero, D.W. Lea, C. Brogenski, S. Denton, L. Juranek, K. Mielke, D. Schuller, M. Thomas (1999) Calibration of the Globigerinoides sacculifer and G. ruber Paleotemperature Relationships from Laboratory Experiments Fall, Eos Trans. AGU, 80, Fall Meet. Suppl., Abstract OS12E-08.

## Other Presentations

- Juranek, L.W., M. Goni, B. Hales, N. Beard, E. Shroyer, Responses of Western Arctic Biogeochemistry and Lower Trophic Level Productivity to Late Season Episodic Nutrient Inputs, Alaska Marine Science Symposium, Anchorage, AK, 23 – 25 Jan, 2018.
- Goñi, M.A., Juranek, L., Hales, B., Sipler, R.E., Bronk, D.A. Water column distributions of particulate organic matter in western Arctic Ocean during late summer and fall, Alaska Marine Science Symposium, Anchorage, AK, 23 – 25 Jan, 2018.
- Juranek, L.W., R.A. Feely, D. Ianson, P.D. Quay, S.R. Alin, C.L. Sabine, Biological Modulation of CO<sub>2</sub> Flux on the US West Coast Determined by Dissolved Oxygen Isotopes and the O<sub>2</sub>/Ar gas ratio, Gordon Research Conference in Chemical Oceanography, Tilton, NH, August 2-7, 2009 (poster).
- Juranek, L.W., P.D. Quay, D. Munro, C. Peacock (2008), Validation of satellite primary productivity estimates using measurements of the oxygen isotope composition of dissolved O<sub>2</sub>, NASA Carbon Cycle and Ecosystems Joint Science Workshop, Adelphi, MD, April 28 - May 2, 2008 (poster)
- Juranek, L.W., E. Barkan, B. Luz, and P.D. Quay (2003), Gross Primary Productivity Rates at HOT and BATS Determined by the triple isotope composition of dissolved oxygen, International Summer School on Surface Ocean-Lower Atmosphere Study, Cargèse/France, June 30 – July 11, 2003 (poster and talk)
- Juranek, L.W., E. Barkan, B. Luz, and P.D. Quay (2003), Gross Primary Productivity Rates at HOT and BATS Determined by the triple isotope composition of dissolved oxygen. JGOFS Open Science Conference, Washington, D.C., May 5-8, 2003 (poster)

## Invited Presentations

- Juranek, L.W. (2021), Carbon, nutrients, and productivity in a changing Arctic, University of Connecticut Marine Science Seminar, February 26, 2021 (via zoom).
- Juranek, L.W. (2018), Using O<sub>2</sub>/Ar to quantify Aquatic Net community Production, NASA/IOCCG Aquatic Primary Productivity Workshop, Columbia, MD, December 2018.
- Juranek, L.W. (2016), Seasonal and spatial variability of productivity and export in the N. Pacific, US GEOTRACES Pacific Meridional Transect Planning Meeting, San Diego, CA, October 2016
- Juranek, L.W. (2015), Floats and boats: rectifying productivity results across methods, space, and time, Ocean Carbon and Biogeochemistry Summer Meeting, Woods Hole, MA, July 2015.
- Juranek, L.W. (2013), Constraining marine productivity at basin to global scales with dissolved oxygen isotopes, Gordon research Conference in Chemical Oceanography, Biddeford ME, August 2013.
- Juranek, L.W. (2011) A dissolved gas tracer approach to determine biologically-regulated air-sea CO<sub>2</sub> flux, Oregon State University, April 7, 2011.
- Juranek, L.W. (2011) Using dissolved gas tracers and ships of opportunity to quantify the Pacific Ocean biological carbon pump, University of Rhode Island, January 18, 2011.
- Juranek, L.W. (2011) Gasses and masses: Using dissolved O<sub>2</sub> isotopes and O<sub>2</sub>/Ar to quantify the Pacific Ocean biological carbon pump, CalTech, October 27, 2010.
- Juranek, L.W. (2010) Quantifying biological carbon uptake and export with dissolved oxygen isotopes and the O<sub>2</sub> /Ar ratio, University of South Carolina, March 4, 2010.
- Juranek, L.W. (2009) Quantifying biological carbon uptake and export with dissolved oxygen isotopes and the O<sub>2</sub> /Ar ratio, Oregon State University, October 8, 2009.
- Juranek, L.W. (2009) Understanding basin-scale primary production and export in the Pacific Ocean using isotopes of dissolved oxygen and the dissolved O<sub>2</sub>/Ar ratio, Duke University, April 7, 2009.
- Juranek, L.W. (2009) Understanding basin-scale primary production and export in the Pacific Ocean using isotopes of dissolved oxygen and the dissolved O<sub>2</sub>/Ar ratio, Stanford University, March 11, 2009.
- Juranek, L.W. (2006), Determining Pacific Ocean Productivity and Export Rates with an Oxygen Isotope and O<sub>2</sub>/Ar approach, Dissertation Symposium in Chemical Oceanography XX, Honolulu, HI, October 8 – 12, 2006.

## Funding

- NOAA-GCC (5/2010-4/2013, \$250,884): In Situ Biological Carbon Fluxes in the Pacific Ocean, PI: Sonnerup(UW) co-PI: Juranek (UW)
- NPRB (9/2010-8/2012), \$19,610): Moored Observations of Ocean Acidification in the Northern Gulf of Alaska, PI: Mathis(UAF), co-PIs Sabine(NOAA-PMEL), Juranek(UW)
- NSF-OPP(ANS)-1232856 (1/2011-12/2014, \$250,651- OSU award): Collaborative Research: Observation and Prediction of Ocean Acidification in the Western Arctic Ocean – Impacts of Physical and Biogeochemical Processes on Carbonate Mineral States, PI: Juranek (UW/OSU)
- NSF-OPP (9/2011- 8/2014, \$39,757 - OSU award): Collaborative Research: Pacific Arctic carbon synthesis – transformations, fluxes, and budgets, PI: Juranek(OSU)
- NOAA-OA (9/2011-8/2014, \$551,525--OSU award)-Oceanic, Coastal, and Estuarine Acidification Observing Network: U.S. West Coast and N. Pacific, PI: B. Hales, co-PIs: J. Barth, and L. Juranek(OSU)



NSF-OPP (9/2014-8/2020, \$533,112- OSU subaward from PI J. Russell, U. Arizona): Collaborative Research: Southern Ocean Carbon and climate Observations and Modeling (SOCCOM), PI: Juranek(OSU)

NSF-GEO (ANS)-1504394 (5/2015-4/2018, \$1,159,146): Late season productivity, carbon, and nutrient dynamics in a changing Arctic, PI: L. Juranek(OSU), co-PIs M. Goñi(OSU), B. Hales(OSU)

Simons Foundation (Life Sciences) (3/2016-2/2017, \$49,863 via Univ. Washington pass-through, E. Armbrust, PI): Model-driven investigations of ocean transition zones, PI: L. Juranek (OSU)

Simons Foundation (Life Sciences) (3/2017-2/2019, \$125,00, via Univ. Washington pass-through, E. Armbrust, PI): Model-driven investigations of ocean transition zones, PI: L. Juranek (OSU)

Simons Foundation (Life Sciences) (1/2018-12/2020, \$524,300, via Univ. Washington pass-through, E. Armbrust, PI): Model-driven investigations of ocean transition zones, PI: L. Juranek (OSU)

NOPP(NASA)- (9/2019-8/2022, \$1,055,005), Marine Biodiversity Observing Network in the Northern California Current: Understanding patterns and drivers of biodiversity and ecosystem functioning from plankton to seascapes, PI: M. Kavanaugh, R. Cowen (OSU), Co-Is: L. Juranek, S. Sponaugle(OSU)

NSF-GEO(ANS)-1949593(4/1/2020 – 3/31/2023, \$500,720, includes supplement) Collaborative Research: A High Resolution Multi-Tracer Biogeochemical Study of the Pacific Arctic, PI: M. Goñi(OSU), co-PI L. Juranek (OSU)

NSF-GEO(AON)-1928684(\$576,735 + \$50,441 INTERN supplement) High Resolution Observing of Arctic Net Community Productivity with Ships of Opportunity, PI: L. Juranek (OSU)

Simons Foundation (Life Sciences)-723714 (7/2020-6/2024, \$615,827): SCOPE-Gradients, PI: L. Juranek (OSU)

NSF-OPP-2110854(7/2021 – 6/2024, \$587,463): EHR-Polar DCL: Authentic Research through Collaborative Learning (ARC-Learn): Undergraduate Research Experiences in Data Rich Arctic Science, PI: J. Risien (OSU), co-PIs L. Juranek and M. Goni (OSU).

NSF-OPP (4/2021-3/2024, \$363,338) Collaborative Research: Taking the Pulse of the Arctic Ocean System, from the shelves to the Pole - A US Contribution to the International Synoptic Arctic Survey, PI: L. Juranek (OSU)

Submitted:

NSF-OPP(ANS) (7/2022-6/2025, \$1,282,542) Collaborative Research: Subsurface productivity in the stratified Pacific Arctic gateway (LIMINAL: Lagrangian Investigation of the Microbial Intersection of Nutrients And Light) PI: L. Juranek, co-PIs (M. Goni and B. Hales)

NOPP(NASA) (7/2022-6/2027, \$2, 289,173) Marine Biodiversity Observation Network in the Northern California Current: Dynamic, multiscale assessment of biodiversity and ecosystem function to support emerging science and management needs, PI: M. Kavanaugh (OSU), Co-I: R. Cowen, S. Sponaugle, M. Schmid, L. Juranek (OSU).

## Fellowships/Awards

2007-2009 National Research Council Postdoctoral Research Associate Fellowship

2006 Selected to present at Dissertation Symposium in Chemical Oceanography XX

2004-2007 NASA Earth System Science Graduate Fellowship

2001-2004 National Defense Science and Engineering Graduate Fellowship

2004 AGU Outstanding Student Paper Award, AGU Fall Meeting

2003 Selected to attend SOLAS young scientist summer program, Corsica, France

2002 AGU Outstanding Student Paper Award, AGU Fall Meeting

1999 Presidential Undergraduate Fellowship Recipient, UC Davis

## Teaching Experience

### Instructional Summary

#### Credit courses taught at OSU

Course #	Title	Credit Hours	# Students	Term/Year
OC401	ARC-Learn Research	1	13	Sp22
GEOG401	ARC-Learn Research	1	4	W22
OC401	ARC-Learn Research	1	12	W22
OEAS540	The Biogeochemical Earth	4	23	F21
OEAS540	The Biogeochemical Earth	4	30	F20
OC334	Polar Oceanography (writing intensive class)	3	19	S20
OEAS540	The Biogeochemical Earth	4	21	F19
OC407/507	OEB Seminar	1	4/4	W19
OC522	Biogeochemical Dynamics	3	4	W19

OEAS540	The Biogeochemical Earth	4	22	F18
OEAS540	The Biogeochemical Earth	4	19	F17
OEAS540	The Biogeochemical Earth	4	20	W17
OEAS540	The Biogeochemical Earth	4	22	W16
OEAS540	The Biogeochemical Earth	4	15	W15
OC 599	Applications in Ecology and Biogeochemistry	4	3	Sp14
GEO484	Introduction to Biogeochemistry	3	10	W14
OC599	Applications in Ecology and Biogeochemistry	4	4	Sp13
GEO484	Introduction to Biogeochemistry	4	17	W13

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### Other Courses/Workshops Taught

*OC003 ARC-Learn Research Program (non-credit option)*

W2022: 6 students

Sp2022: 7 students

*Cascadia Research Cruise in Yaquina Bay (fall 2014, 2015, 2018, 2019):*

Role: Co-Instructor for 1-day cruise in Yaquina Bay

*Guest Lectures:*

2022 OC 103: Exploring the Deep: Geography of the World's Oceans, Guest Lecture on Polar Oceans

2017 OC295: Field Oceanography: Guest lecture on Planning and Logistics of an Arctic field campaign

2016 OC 521: Applications in Ocean Ecology and Biogeochemistry, Guest lecture on Dissolved gases and O<sub>2</sub> sensor operating principles

2015 OC521: Applications in Ocean Ecology and Biogeochemistry, 2 guest lectures (dissolved gases and O<sub>2</sub> sensors, Course Introduction and Research Cruise Planning)

Other:

2004 Global Carbon Cycle and Greenhouse Gases, Teaching Assistant (Instructors: Steven Emerson, Lyatt Jaeglé)

### Student Evaluations of Teaching (Scale 1-6)

Course	Term	Type (**)		E (6)	VG (5)	Good (4)	Fair (3)	Poor (2)	VP (1)	Rated/enrolled	Median (1–6)
GEO 484	W13	req	Instructor	0	4	3	0	0	0	7/17	4.6
			As a whole	0	4	3	1	0	0	8/17	4.5
OC599	Sp13	req	Instructor	1	1	0	0	0	0	2/4	5.5
			As a whole	0	2	0	0	0	0	2/4	5.0
GEO 484	W14	req	Instructor	1	3	0	0	0	0	4/10	5.2
			As a whole	0	2	2	0	0	0	4/10	4.5
OC599	Sp14	req	Instructor	2	1	0	0	0	0	3/3	5.7
			As a whole	1	1	1	0	0	0	3/3	5.0
OEAS540	W15	req	Instructor	1	4	3	0	0	0	8/15	4.8
			As a whole	2	3	3	0	0	0	8/15	4.8
OEAS540	W16	req lect.	Instructor	6	8	1	0	0	0	15/22	5.3
			As a whole	5	8	1	1	0	0	15/22	5.2
OEAS540	W16	req lab	Instructor	7	5	2	0	0	0	14/22	5.5
			As a whole	4	7	3	0	0	0	14/22	5.1
OEAS540	W17	req lect.	Instructor	5	3	1	0	0	0	9/20	5.6
			As a whole	0	7	2	0	0	0	9/20	4.9
OEAS540	W17	req lab	Instructor	3	4	1	0	0	0	8/20	5.3
			As a whole	1	5	2	0	0	0	8/20	4.9
OEAS540	F17	req lect.	Instructor	6	3	1	0	0	0	10/19	5.7
			As a whole	2	5	2	0	0	0	9/19	5.0
OEAS540	F18	req lect.	Instructor	7	2	1	0	0	0	10/22	5.8
			As a whole	8	2	0	0	0	0	10/22	5.9
OEAS540	F18	req lab	Instructor	6	2	1	1	0	0	11/22	5.8
			As a whole	7	2	1	0	0	0	11/22	5.8
OC522	W19	req lect.	Instructor	2	0	0	0	0	0	2/4	6.0
			As a whole	1	1	0	0	0	0	2/4	5.5
OEAS540	F19	req lect	Instructor	5	2	0	0	0	0	7/20	5.8
			As a whole	3	2	2	0	0	0	7/20	5.3

\*Required (req), non-required (non), core (core), elective (elec).

## Mentoring and Advising

### Post-Doctoral Advisor

*no Post-doctoral advisees to date*

### Student Thesis/Dissertation Advisor (*as major professor*)

Name	Degree	Date Entered Program	Graduation Date
Maria Cristina Alvarez	M.S.	Summer 2022	Enrolled
Haley Cynar	M.S./Ph.D.	Fall 2018	Enrolled
Carolyn Kachuk	M.S.	Fall 2017	Sept. 2019
Nancy Williams	Ph.D.	Spring 2015	March 2018

### Student Thesis/Dissertation Advisor (*as co-advisor*)

Name	Degree	Date Entered Program	Graduation Date
Aleesa Bryant	M.S.	Fall 2020	Enrolled
Maggie Buktenica	M.S.	Fall 2014	Spring 2017

### Student Advisory Committee

Name	Major	Degree	Joined Committee	Graduation Date
Malik Jordan	Mech. Engr/OSU	Ph.D.	Spring 2022	Enrolled
Nicole Coffey	OEAS/OSU	Ph.D.	Spring 2022	Enrolled
Natasha Griffin	OEAS/OSU	M.S.	Fall 2020	Enrolled
Ben Riddell-Young	OEAS/OSU	Ph.D.	Spring 2020	Enrolled
Theresa Fritz-Endres	OEAS/OSU	Ph.D.	Spring 2019	Dec. 2021
Natasha Christman	OEAS/OSU	Ph.D.	Spring 2019	Enrolled
Stephen Pacella	OEAS/OSU	Ph.D.	Winter 2017	Fall 2018
Amanda Timmermans	Oceanography (Univ. of Victoria, Canada)	Ph.D.	Winter 2015	Sept. 2019

### Undergraduate advising

Name	Program	Role	Date
Elizabeth Corvi	OSU Honors College Thesis	Committee Member	2017
Bailey Burk	URSA-Engage	Research Mentor	2017-2018
Wyatt Stottlemeyer	OSU Honors College/College of Engineering	Research Mentor	2017

## Field Experience

~627 at sea days as of June 2021

Date	Research Vessel	Project	Location	Role
Feb. 2022 (4 days)	R/V <i>Sikuliaq</i>	Calibration/Training cruise	Oregon Coast	Ancillary PI
Nov-Dec 2021 (28 days)	R/V T.G. <i>Thompson</i>	SCOPE-Gradients	Subtropical /Equatorial Pacific	PI

Aug-Sept 2021 (19 days)	USCGC <i>Healy</i>	Northwest Passage	Bering, Chukchi, Beaufort, Baffin Bay	PI
May-June 2021 (26 days)	R/V <i>Sikuliaq</i>	Mercury Cycling/AON	Bering and Chukchi Seas	Ancillary/PI
Oct.-Nov. 2020 (42 days)	R/V <i>Sikuliaq</i>	Arctic Observing Network	Chukchi and Beaufort Seas, N. Pacific transit	PI
April 2019 (22 days)	R/V <i>Kilo Moana</i>	Oceanic transition zones (Gradients)	N. Pacific	PI
June 2018 (25 days)	R/V <i>Sikuliaq</i>	NPRB Integrated Arctic Ecosystem Research Program	N. Bering, S. Chukchi	Ancillary Investigator
Aug. 2017 (23 days)	R/V <i>Sikuliaq</i>	The Dynamic Arctic: Late Season Productivity	Chukchi Sea, Arctic	Chief Scientist & PI
May 2017 (18 days)	R/V <i>Marcus G. Langseth</i>	Oceanic transition zones (Gradients)	N. Pacific	PI
April 2017 (15 days)	R/V <i>Sikuliaq</i>	Ocean Observatories Initiative Endurance Array	Oregon/ Washington Coast	Chief Scientist
Sept 2016 (28 days)	R/V <i>Sikuliaq</i>	The Dynamic Arctic: Late Season Productivity	Chukchi and Beaufort Seas, Arctic	Chief Scientist & PI
June 2016 (14 days)	R/V <i>Kaimikai-O- Kanaloa</i>	Oceanic transition zones (Gradients)	N. Pacific	PI
Oct. 2013 (25 days)	USCGC <i>Healy</i>	Ocean Acidification in the Western Arctic	Chukchi and Beaufort Seas, Arctic	PI
Oct. 2012 (20 days)	USCGC <i>Healy</i>	Ocean Acidification in the Western Arctic	Chukchi and Beaufort Seas, Arctic	PI
July 2012 (15 days)	R/V <i>Bell M. Shimada</i>	West Coast Ocean Acidification	Washington, Oregon, California Coast	Co-Chief Scientist & PI
Oct. 2011 (25 days)	USCGC <i>Healy</i>	Ocean Acidification in the Western Arctic	Chukchi and Beaufort Seas, Arctic	PI
2011 (24 days)	R/V <i>Wecoma</i>	NOAA West Coast Ocean Acidification	WA, OR, CA Coast	Co-Chief Scientist
2010 (15 days)	CCGS <i>John P. Tully</i>	DFO-Canada West Coast Ocean Acidification	SE Alaska and British Columbia coast	Participant
2010 (37 days)	R/V <i>Mehville</i>	CLIVAR P6 Repeat Hydrography Cruise (Tahiti to Chile), 37 days	S. Pacific (Tahiti to Chile)	Participant
2009 (14 days)	<i>n/a</i>	Coral Community Calcification	Kaneohe Bay, HI	Participant
2008 (33 days)	R/V <i>Ronald H. Brown</i>	CLIVAR P18 Repeat Hydrography	S. Pacific (Easter Island to Punta Arenas, Chile)	Participant
2007 (35 days)	R/V <i>Wecoma</i>	NOAA West Coast Ocean Acidification	Washington, Oregon, California, Mexico coast	Participant
2006 (21 days)	R/V <i>Thomas G. Thompson</i>	CLIVAR P16N Repeat Hydrography	N. Pacific	Participant
2004-2005 (60 days)	M/V <i>Columbus Waikato</i>	Four NOAA Volunteer Observing Ship pCO <sub>2</sub> monitoring cruises	Pacific (Los Angeles to AUS/N.Z.)	Participant

2003 (28 days)	R/V <i>Kilo</i> <i>Moana</i>	Two N. Pacific Transit Cruises (COOKBOOK 1 & 2)	N. Pacific	Participant
2001-2003 (25 days)	R/V <i>Kaimikai-O-Kanloa</i>	Five Hawaii Ocean Time-series Cruises: 127, 135, 140, 145, 151	Subtropical N. Pacific	Participant
2000 (3 months)	n/a	Foraminifera Culturing Project	Wrigley Marine Center, Catalina Isl. CA	Lab Manager
1999 (3 months)	n/a	Foraminifera Culturing Project	Isla Magueyes Marine Lab, Puerto Rico	Undergraduate Lab Asst.

## Leadership, Service, and Outreach Activities

### Community/National:

- Co-Chair, State of Oregon Ocean Acidification and Hypoxia Council (June 2022- present)
- Chair, UNOLS Arctic Icebreaker Coordination Committee (February 2022-present)
- UNOLS Arctic Icebreaker Coordination Committee member (April 2019-Feb 2022);  
-Working group chair on PI Communication with Alaska Native Communities
- Associate Editor for *Limnology and Oceanography* (2019-present)
- US Science Steering Committee for Synoptic Arctic Survey (2019-present)  
-Leadership team for attaining funding/shiptime for US component of this International Coordinated Research Campaign
- NASA-PACE / IOCGC Primary Productivity Protocol Working Group (2018-present)  
-Invited Participation in workshop and lead author / co-author of 1 / 2 peer-reviewed chapters for resulting Productivity Best Practices Guide
- Co-convener of AGU/ASLO Ocean Sciences Session on “The Role of Cell Size and Plankton Community Structure as Drivers of Ocean Metabolism,” San Diego, CA, 2020
- NOAA Arctic Research Program Review Panel Chair (2019)  
-Chaired a team of six scientists to review NOAA Arctic Research Program activities over the previous 5 years, lead author on evaluation report
- OCB/CLIVAR US GOSHIP Review Panel (2018-2019)  
-Member of 6 person OCB/CLIVAR sponsored panel to review US GO-SHIP Program, report available at doi:10.1575/1912/24897
- Ocean Carbon and Biogeochemistry Science Steering Committee 2016-2019
- Participated as DISCO XX representative to the Chemical Oceanography Meeting: A Bottom-up Approach to Research Directions (COME ABOARD), 2016
- Co-convener of AGU/ASLO Ocean Sciences Session on Productivity across space and time domains, Honolulu, HI 2014
- Co-convener of Session on Ocean Acidification, ASLO Meeting in San Juan. PR, 2011
- North American Carbon Program West Coast Carbon Synthesis working group, 2011-2014
- Funding Panels: NSF (2019, 2017, 2016); NOAA (2017), NASA(2013)
- Ongoing: Manuscript Reviewer for *Journal of Geophysical Research*, *Geophysical Research Letters*, *Global Biogeochemical Cycles*, *Continental Shelf Research*, *Limnology and Oceanography*, *Deep-Sea Research II*, *Rapid Communications in Mass Spectrometry*, *Biogeosciences*, *Nature*, *Marine Chemistry*
- Ongoing: Ad-hoc proposal review NSF Polar Programs (Antarctic and Arctic), NSF Chemical Oceanography, NSF Earth Sciences, NSF Ocean Technology and Interdisciplinary Coordination, NSF Major Research infrastructure, NERC large programs (UK),

### University:

- CEOAS Lead on ARC-Learn Research program: An undergraduate research experience in data-rich polar science aimed to reduce barriers for nontraditional and historically excluded students (2021-present)
- OSU College of Earth, Ocean, and Atmospheric Sciences Committees:
  - CEOAS Strategic Task Force (2021-2022)
  - Seagoing Physical Oceanographer Hire Committee (2022)

- College Leadership Team and Discipline Group Lead (2018-2021)
  - Ocean Ecology and Biogeochemistry Discipline JEDI statement writing team (2019-2020)
  - URGEoscience POD participant (2020)
  - OSU writing team for CICOES NOAA Cooperative Institute Proposal (2019)
  - Faculty Opportunity Hire Committee – E. Pettit (2018)
  - Research Faculty Opportunity Hire Committee – M. Walczak (2018)
  - Research Faculty Opportunity Hire Committee – C. Buizert (2016)
  - Associate Dean for Research and Faculty Advancement Hiring Committee (2016-2017)
  - Promotion and Tenure Committee (2012-2013, 2016-2017)
  - OEB Tracer Faculty Hire Committee (2015-2016)
  - Peer Review of Teaching Committee (2015-2016)
  - Faculty Opportunity Hire Committee – D. Noone (2014)
  - OEB/G&G Heavy Isotope Faculty Hire Committee (2012-2013)
  - College Advisory Committee, alternate member (2012-2015)
- Mentor for the URSA Engage Program (2016-2017)
  - OSU Research Impacts Network Member 2016-present

#### Outreach:

- Planned and executed a successful Teacher at Sea Program via partnership with J. Risien, Assoc. Director of OSU Center for Lifelong STEM Learning; Salem middle school science teacher (J. Callaghan) participated on 2016 Arctic Research cruise, resulted in multiple STEM outreach videos available at <https://thedynamicarctic.wordpress.com>
- Coordinated participation of Anchorage School District STEM Curriculum Development Coordinator D. Greene on 2017 Arctic Research Cruise; resulted in Next Generation Science Standard (NGSS) – aligned ‘science in practice’ modules for use in advanced science classes in Alaskan Schools, also available at <https://thedynamicarctic.wordpress.com>
- Led a cruise-related classroom and community outreach visit to Point Hope School, a remote Alaskan village, in conjunction with Arctic fieldwork, 2016
- Community Outreach to Alaska Eskimo Whaling Commission, Barrow AK (Feb 2016) and Anchorage, AK (July 2016 and December 2016, December 2017)
- COMPASS Science Communication Outreach training, March 2016
- Volunteer for National Ocean Sciences Salmon Bowl at OSU (2012, 2013, 2014, 2015, 2017, 2018)
- Co-organized and led an Ocean Acidification workshop at the Expanding Your Horizons Workshop for middle school girls, Bellevue, WA, March 2011.

#### Interviews, Press, Printed Features

- Feature article about my work “Medium Matters: Making the case for middle-sized phytoplankton” by A. Metzger in *Strata*, 2021 (1).
- Feature article on Arctic Research in OSU’s *Terra*, Winter 2017
- Short description of Arctic Research in *Oregon Stater*, Spring 2017
- Featured on OSU e-campus research unit’s ‘Research in Action’ podcast, ep:48, Feb 2017, available at: <http://ecampus.oregonstate.edu/research/podcast/e48/>
- Feature article on ‘Oceanography Boot-camp’ research experience for OC599 resulting from state-funded shiptime request awarded to A. White, L. Juranek, and K. Shearman, in *OSU Terra*, 2014
- Boing-Boing: How ocean science saves money by hitching a ride, March 2013 <http://boingboing.net/2013/03/13/how-ocean-science-saves-money.html>