

CURRICULUM VITAE

PERSONAL INFO:

Samantha Siedlecki
College of Liberal Arts and Sciences
Department of Marine Sciences
University of Connecticut
1080 Shennecossett Rd.
Groton, CT 06340-6048
samantha.siedlecki@uconn.edu
<https://samanthasiedlecki.wixsite.com/coastalbiogeodynlab>

EDUCATION:

- 2010 University of Chicago, Department of Geophysical Sciences, Chicago, IL
PhD: *The Role of the Bottom Boundary Layer in Biogeochemical Cycles of the Coastal Ocean*. Advisor: David Archer
- 2002 Eckerd College, St. Petersburg, FL
B.S. Marine Science, Concentration: Marine Geology
Thesis: *Pleistocene Orbital-Scale Depositional Cycles along the Shelf Margin of the Great Australian Bight: Paleoclimatic Implications*. Advisor: Gregg Brooks

PROFESSIONAL AND RESEARCH EXPERIENCE:

- 2017-present *Assistant Professor*, Department of Marine Sciences, College of Liberal Arts and Sciences, University of Connecticut
- 2019-2021 NSF/NCAR Early Career Faculty Innovator Program
- 2012-2017 *Research Associate*, Joint Institute for the Study of the Atmosphere and Ocean (JISAO), Univ. of Washington
- 2016, 2018, 2020 *Kavli Fellow*, participant, Chinese-American Kavli Frontiers of Science symposium
- 2015 (April –May) *Co-Chief Scientist*, CLIVAR Repeat Hydrography Cruise Leg 1 of P16, April 2015
- 2010-2012 *Postdoctoral Research Fellow*, Joint Institute for the Study of the Atmosphere and Ocean (JISAO) and Program on Climate Change (PCC), University of Washington
- 2010 *Participant*, Dissertations in Chem. Oceanography (DISCO) XXII
- 2002-2010 *Graduate Research Assistant*, Department of Geophysical Sciences, University of Chicago
- 2000 -2002 *Research Assistant*, Paleoceanography Lab, Univ. of South Florida
- 1998-2002 *Undergraduate Research Assistant*, Department of Marine Science, Eckerd College

PEER-REVIEWED PUBLICATIONS:

34. Siedlecki, S. A., Pilcher, D., Howard, E. M., Deutsch, C., MacCready, P.,

- Norton, E. L., Frenzel, H., Newton, J., Feely, R. A., Alin, S. R., and Klinger, T.: Coastal processes modify projections of some climate-driven stressors in the California Current System, *Biogeosciences*, 18, 2871–2890, <https://doi.org/10.5194/bg-18-2871-2021>, 2021.
33. SA Siedlecki, J Salisbury, DK Gledhill, C Bastidas, S Meseck, K McGarry, CW Hunt, M Alexander, D Lavoie, ZA Wang, J Scott, DC Brady, I Mlsna, K Azetsu-Scott, CM Liberti, DC Melrose, MM White, A Pershing, D Vandemark, DW Townsend, C Chen, W Mook, R Morrison; Projecting ocean acidification impacts for the Gulf of Maine to 2050: New tools and expectations. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00062. doi: <https://doi.org/10.1525/elementa.2020.00062>
32. SA Siedlecki, J Salisbury, DK Gledhill, C Bastidas, S Meseck, K McGarry, CW Hunt, M Alexander, D Lavoie, ZA Wang, J Scott, DC Brady, I Mlsna, K Azetsu-Scott, CM Liberti, DC Melrose, MM White, A Pershing, D Vandemark, DW Townsend, C Chen, W Mook, R Morrison; Projecting ocean acidification impacts for the Gulf of Maine to 2050: New tools and expectations. *Elementa: Science of the Anthropocene* 21 January 2021; 9 (1): 00062. doi: <https://doi.org/10.1525/elementa.2020.00062>
31. McGarry, K. *, S.A. Siedlecki, J. Salisbury, and S. R. Alin (2021) Multiple linear regression models for reconstructing and exploring processes controlling the carbonate system of the northeast US from basic hydrographic data. *JGR-Oceans*, 126, e2020JC016480. <https://doi.org/10.1029/2020JC016480>
30. MacCready, P., McCabe, R. M., Siedlecki, S. A., Lorenz, M., Giddings, S. N., Bos, J., et al. (2021). Estuarine circulation, mixing, and residence times in the Salish Sea. *Journal of Geophysical Research: Oceans*, 126, e2020JC016738. <https://doi.org/10.1029/2020JC016738>
29. Malick MJ, Siedlecki SA, Norton EL, Kaplan IC, Haltuch MA, Hunsicker ME, Parker-Stetter SL, Marshall KN, Berger AM, Hermann AJ, Bond NA and Gauthier S (2020) Environmentally Driven Seasonal Forecasts of Pacific Hake Distribution. *Front. Mar. Sci.* 7:578490. doi: 10.3389/fmars.2020.578490
28. Ray, S., **Siedlecki, S. A.**, Alexander, M. A., Bond, N. A., & Hermann, A. J. (2020). Drivers of subsurface temperature variability in the Northern California Current. *Journal of Geophysical Research: Oceans*, 125, e2020JC016227. <https://doi.org/10.1029/2020JC016227>
27. Flynn, R. F., Granger, J., Veitch, J. A., **Siedlecki, S.**, Burger, J. M., Pillay, K., & Fawcett, S. E. (2020). On-shelf nutrient trapping enhances the fertility of the southern Benguela upwelling system. *Journal of Geophysical Research: Oceans*, 125, e2019JC015948. <https://doi.org/10.1029/2019JC015948>

26. Jacox, M. G., Alexander, M. A., **Siedlecki, S.**, Chen, K., Kwon, Y.-O., Brodie, S., ... Rykaczewski, R. (2020). Seasonal-to-interannual prediction of North American coastal marine ecosystems: Forecast methods, mechanisms of predictability, and priority developments. *Progress in Oceanography*, 183, 102307.
<https://doi.org/https://doi.org/10.1016/j.pcean.2020.102307>
25. Norton, E., **Siedlecki, S.A.**, Kaplan, I.C., Hermann, A.J., Fisher, J., Morgan, C., Officer, S., Saenger, C., Alin, S.A., Newton, J., Bednarsek, N., and R.A. Feely (2020) The Importance of Environmental Exposure History in Forecasting Dungeness Crab Megalopae, Occurrence Using J-SCOPE, a High-Resolution Model for the US Pacific Northwest. *Frontiers in Marine Science*, 7, 102. <https://doi.org/10.3389/fmars.2020.00102>
24. Bednaršek, N., Feely, R. A., Beck, M. W., Alin, S. R., **Siedlecki, S. A.**, Calosi, P., ... Spicer, J. I. (2020). Exoskeleton dissolution with mechanoreceptor damage in larval Dungeness crab related to severity of present-day ocean acidification vertical gradients. *Science of The Total Environment*, 716, 136610.
<https://doi.org/https://doi.org/10.1016/j.scitotenv.2020.136610>
23. Capotondi, A., Jacox, M., Bowler, C., Kavanaugh, M., Lehodey, P., Barrie, D., Brodie, S., Chaffron, S., Cheng, W., Faggiani Dias, D., Eveillard, D., Guidi, L., Iudicone, D., Lovenduski, N., Nye, J.A., Ortiz, I., Pirhalla, D.E., Pozo Buil, M., Saba, V., Sheridan, S.C., **Siedlecki, S.A.**, Subramanian, A., De Vargas, C., Di Lorenzo, E., Doney, S.C., Hermann, A.J., Joyce, T., Merrifield, M., Miller, A.J., Not, F., & S. Pesant (2019). *Observational Needs Supporting Marine Ecosystems Modeling and Forecasting: From the Global Ocean to Regional and Coastal Systems* . *Frontiers in Marine Science*.
<https://www.frontiersin.org/article/10.3389/fmars.2019.00623>
22. L. Schmeisser, N. A. Bond, S. A. Siedlecki, & T. P. Ackerman, (2019) The role of clouds and surface heat fluxes in the maintenance of the 2013-2016 Northeast Pacific marine heatwave. *JGR-Atmospheres*, 124, 10, 772-10, 783. <https://doi.org/10.1029/2019JD030780>
21. Tilbrook, B., Jewett, E. B., DeGrandpre, M. D., Hernandez-Ayon, J. M., Feely, R. A., Gledhill, D. K., Hansson, L., Isensee, K., Kurz, M.L., Newton, J.A., **Siedlecki, S.A.**, Chai, F., Dupont, S., Graco, M., Calvo, E., Greeley, D., Kapsenberg, L., Lebrech, M., Pelejero, C., Schoo, K.L., and Telszewski, M. (2019). An Enhanced Ocean Acidification Observing Network: From People to Technology to Data Synthesis and Information Exchange. *Frontiers in Marine Science*, 6, 337.
<https://doi.org/10.3389/fmars.2019.00337>
20. Fennel, K., Alin, S., Barbero, L., Evans, W., Bourgeois, T., Cooley, S., Dunne, J., Feely, R. A., Martin Hernandez-Ayon, J., Hu, X., Lohrenz, S.,

- Muller-Karger, F., Najjar, R., Robbins, L., Shadwick, E., **Siedlecki, S. A.**, Steiner, N., Sutton, A., Turk, D., Vlahos, P., & Aleck Wang, Z. (2019). Carbon cycling in the North American coastal ocean: A synthesis. *Biogeosciences*, (6 ed., vol. 16, pp. 1281-1304). <https://doi.org/10.5194/bg-16-1281-2019>
19. Barth, J. A., Allen, S. E., Dever, E. P., Dewey, R. K., Evans, W., Feely, R. A., Fisher, J. L., Fram, J. P., Hales, B., Ianson, D., Jackson, J., Juniper, K., Kawka, O., Kelley, D., Klymak, J. M., Konovsky, J., Kosro, P. M., Kurapov, A., Mayorga, E., MacCready, P., Newton, J., Ian Perry, R., Risien, C. M., Robert, M., Ross, T., Kipp Shearman, R., Schumacker, J., **Siedlecki, S. A.**, Trainer, V. L., Waterman, S., & Wingard, C. E. (2019). Better Regional Ocean Observing Through Cross-National Cooperation: A Case Study From the Northeast Pacific. *Frontiers in Marine Science*, 6, 93. <https://doi.org/10.3389/fmars.2019.00093>
19. Hobday, A.J., Hartog, J.R., Pershing, A.J., Manderson, J., Mills, K.E., Oliver, M.J., and **S.A. Siedlecki** (2019). Ethical considerations and unanticipated consequences associated with ecological forecasting for marine resources. *ICES Journal of Marine Science*, (vol. fsy210). <https://doi.org/10.1093/icesjms/fsy210>
18. Pershing, A.J., R.B. Griffis, E.B. Jewett, C.T. Armstrong, J.F. Bruno, D.S. Busch, A.C. Haynie, **S.A. Siedlecki**, and D. Tommasi, 2018: Oceans and Marine Resources. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. doi: 10.7930/NCA4.2018.CH9
17. Pilcher, D.J., D.M. Naiman, J.N. Cross, A.J. Hermann, **S.A. Siedlecki**, G.A. Gibson, J.T. Mathis (2019) Natural and anthropogenic drivers of aragonite saturation state in the Bering Sea. *Front. Mar. Sci.* 5:508. doi: 10.3389/fmars.2018.00508
16. Pilcher, D.J., **Siedlecki, S.A.**, Hermann, A.J., Coyle, K.O., Mathis, J.T., W. Evans (2018) Simulated impact of high alkalinity glacial runoff on CO₂ uptake in the Coastal Gulf of Alaska, *Geophysical Research Letters*, 45, 880–890. <https://doi.org/10.1002/2017GL075910>
15. **Siedlecki, S. A.**, Pilcher, D. J., Hermann, A. J., Coyle, K., & Mathis, J. (2017). The importance of freshwater to spatial variability of aragonite saturation state in the Gulf of Alaska. *Journal of Geophysical Research: Oceans*, 122. <https://doi.org/10.1002/2017JC012791>
14. Bednaršek, N., R.A. Feely, N. Tolimieri, A.J. Hermann, **S.A. Siedlecki**, H.O. Pörtner, G.G. Waldbusser, P. McElhany, S.R. Alin, and J. Menkel (2017): Exposure history determines pteropod vulnerability to ocean acidification along the US West Coast. *Scientific Reports* 7, Article number: 4526, doi:10.1038/s41598-017-03934-z
13. Carter, B.R., Feely, R.A., Mecking, S., Cross, J. N., Macdonald, A.M., **Siedlecki, S.A.** Talley, L., Sabine, C. L., Millero, R., Swift, J.H. , and Dickson, A. G., (2017) Two Decades of Pacific

- Anthropogenic Carbon Storage and Ocean Acidification Along GO-SHIP Sections P16 and P02, *Global Biogeochem. Cycles*, 31, doi:10.1002/2016GB005485.
12. Tommasi, D., Stock, C. A., Hobday, A. J., Methot, R., Kaplan, I. C., Eveson, J. P., Holsman, K., Miller, T. J., Gaichas, S., Gehlen, M., Pershing, A., Vecchi, G. A., Msadek, R., Delworth, T., Eakin, C. M., Haltuch, M. A., Séférian, R., Spillman, C. M., Hartog, J. R., **Siedlecki, S. A.**, Samhuri, J. F., Muhling, B., Asch, R. G., Pinsky, M. L., Saba, V. S., Kapnick, S. B., Gaitan, C. F., Rykaczewski, R. R., Alexander, M. A., Xue, Y., Pegion, K. V., Lynch, P., Payne, M. R., Kristiansen, T., Lehodey, P., & Werner, F. E. (2017). Managing living marine resources in a dynamic environment: The role of seasonal to decadal climate forecasts. *Progress in Oceanography* (vol. 152, pp. 15-49). <https://doi.org/10.1016/j.pocean.2016.12.011>
 11. S. McClatchie, A. R. Thompson, S. R. Alin, S. J. Bograd, **S.A. Siedlecki**, W. Watson, (2016) The influence of Pacific Equatorial Water on fish diversity in the southern California Current System, *JGR-Oceans*, doi:10.1002/2016JC011672
 10. **Siedlecki, S.A.**, Kaplan, I.C., Hermann, A., Nguyen, T., Bond, N., Williams, G., Newton, J., Peterson, W. T., Alin, S., and R.A. Feely (2016) Experiments with Seasonal Forecasts of ocean conditions for the Northern region of the California Current upwelling system, *Nature: Scientific Reports* 6, doi:10.1038/srep27203
 9. Harrison, C.S., Hales, B., **Siedlecki, S.A.**, and Samelson, R.M., Potential and timescales for oxygen depletion in coastal upwelling systems: Idealized model analysis (2016) *JGR-Oceans* 121, doi:10.1002/2015JC011328.
 8. Kaplan, I. C., Williams, G. D., Bond, N. A., Hermann, A. J. and **Siedlecki, S. A.** (2016), Cloudy with a chance of sardines: forecasting sardine distributions using regional climate models. *Fisheries Oceanography*, 25: 15–27. doi: 10.1111/fog.12131
 7. **Siedlecki, S.A.**, Banas, N., Davis, K.A., Giddings, S., Hickey, B.M., MacCready, P., Connolly, T., and S. Geier, Seasonal and interannual oxygen variability on the Washington and Oregon continental shelves, (2015), *J. Geophys. Res. Oceans*, 120, DOI: 10.1002/2014JC010254
 6. Davis, K. A., N. S. Banas, S. N. Giddings, **S. A. Siedlecki**, P. MacCready, E. J. Lessard, R. M. Kudela, and B. M. Hickey (2014), Estuary-enhanced upwelling of marine nutrients fuels coastal productivity in the U.S. Pacific Northwest, *J. Geophys. Res. Oceans*, 119, 8778–8799, doi:[10.1002/2014JC010248](https://doi.org/10.1002/2014JC010248).
 5. Giddings, SN, MacCready, P, Hickey, BM, Banas, NS, Davis, KA, **Siedlecki, SA**, Trainer, VL, Kudela, RM, Pelland, NA, and Connolly, TP. (2014) Hindcasts of harmful algal bloom transport on the Pacific Northwest coast, *JGR-oceans*, 119(4), 2439-2461. doi: 10.1002/2013/JC009622.
 4. **Siedlecki, SA**, Mahadevan, A, and Archer, DE (2012) The Coastal Ocean as a Supplier of Global Iron: Mechanisms for Iron Export in an Upwelling

3. Regime, *Geophysical Research Letters* **39**, DOI:10.1029/2011GL050366
3. **Siedlecki SA**, Archer, DE, and Mahadevan, A (2011) Mechanisms for nutrient exchange and ventilation in the coastal ocean: an idealized model for the East Coast of the US, *Journal of Geophysical Research – Oceans* **116**
2. Loubere P, **Siedlecki SA**, and Bradtmiller LI (2007) Organic carbon and carbonate fluxes: Links to climate change *DEEP-SEA RESEARCH PART II-TOPICAL STUDIES IN OCEANOGRAPHY* **54** (5-7): 437-446
1. Brunner, C.A., Andres, M., Holbourn, A.E., **Siedlecki, S.**, Brooks, G.R., Molina Garza, R.S, Fuller, M.D., Ladner, B.C., Hine, A.C., and Li, Q., 2002. Quaternary planktonic foraminiferal biostratigraphy, ODP Leg 182 sites. In Hine, A.C., Feary, D.A., and Malone, M.J. (Eds.), Proc. ODP, Sci. Results, 182 [Online]. Available from World Wide Web: <http://www.odp.tamu.edu/publications/182_SR/011/011.htm>.

IN PREP PUBLICATIONS:

1. Berger, H., **Siedlecki, S.A.**, Matassa, C., Alin, S.R., Kaplan, I., Hodgson, E., Pilcher, D., Norton, E., and Newton J. (*in review*) Seasonality and life history complexity determine vulnerability of Dungeness crab to multiple climate stressors, *AGU Advances*
2. Sunday, J., Klinger, T.M., Newton, J.A., Deutsch, C. A., Howard, E., Pilcher, D.J., Franke, E., **Siedlecki, S.A.**, and MacCready, P.M. (*in prep*) Downscaled climate change projections in the California Current marine ecosystem, *Global Change Biology*
3. Siedlecki, S.A., MacCready, P., Norton, E., Alin, S.R., Sutton, A., et al. (*in prep*) Estuarine modification of regional carbon variables: The case of the Salish Sea
4. Norton, E., Kaplan, I., Siedlecki, S.A. et al. (*in prep*) Predicting Dungeness crab catch rates in Washington and Oregon using ocean forecasts from J-SCOPE

Technical Contributor to:

Feely, R. A., S. Alin, B. Carter, J. P. Dunne, D. K. Gledhill, L. Jiang, V. Lance, C. Stepien, A. Sutton, and R. Wanninkhof, 2020: Open Ocean Region Acidification Research. NOAA Ocean, Coastal, and Great Lakes Acidification Research Plan: 2020-2029, <https://oceanacidification.noaa.gov/ResearchPlan2020>

Busch, D.S., S. Alin, R.A., Feely, P. McElhany, M. Poe, B. Carter, J. Leoenard, D. Lipski, J. Roletto, C. Stepien, J. Waddell, 2020: West Coast Region Acidification Research. NOAA Ocean, Coastal, and Great Lakes Acidification Research Plan: 2020-2029, <https://oceanacidification.noaa.gov/ResearchPlan2020>

PSEMP Marine Waters Workgroup. (2019). Puget Sound marine waters: 2018 overview. S. K. Moore, R. Wold, B. Curry, K. Stark, J. Bos, P. Williams, N. Hamel, J. Apple, S. Kim, A. Brown, C. Krembs, and J. Newton, editors.

<https://www.psp.wa.gov/PSmarinewatersoverview.php>

Newsletters:

Anderson, C., **Siedlecki, S.A.**, Rousseaux, C., Powell, B., Peterson, W., and C. Edwards (2017) Impact of ENSO on biogeochemistry and lower trophic level response in the California Current System. US CLIVAR Variations Winter 2017 Newsletter, Vol. 15, No. 1 (<https://usclivar.org/archived-webinars>)

Siedlecki, S.A., Bjorkstedt, E., Feely, R.A., Sutton, A., Cross, J., and J. Newton (2016) Impact of the Blob on the Northeast Pacific Ocean biogeochemistry and ecosystems. US CLIVAR Variations Spring 2016 Newsletter, Vol 14, No. 2 (<https://usclivar.org/archived-webinars>)

Siedlecki, S. A., A. Hermann, N. Bond, S. Alin, R. Feely, I. C. Kaplan, and J. Newton, 2015: Predicting Hypoxia And Ocean Acidification Of The Coastal Waters Of The Ccs: What Do We Know And What Can We Expect? California Cooperative Oceanic Fisheries Investigations Reports, 84-85.

Alin, S., and **S. Siedlecki**, 2014. Coastal CARbon Synthesis (CCARS): West Coast Carbon synthesis workshop. *Ocean Carbon and Biogeochemistry (OCB) Newsletter*, Volume 7, Number 1, Summer 2014 (http://www.us-ocb.org/publications/OCB_NEWS_SUMMER14.pdf).

FUNDING:

NSF (2021-2022) NSF Convergence Accelerator Track E: Regional climate change projections to enable equitable ocean planning for the blue economy. (PIs: Malin L Pinsky, Lyndie Hice-Dunton, Marta M Ribera, Samantha A Siedlecki and Kevin J St. Martin)

NOAA OAP (2020-2023) Assessing vulnerability of the Atlantic Sea Scallop social-ecological system in the northeast waters of the US (PIs Siedlecki, Meseck, Colburn, Matassa, Curchitser, Bethoney)

NOAA MAPP (2020-2022) Building capacity for predicting climate impacts on living marine resources in US coastal systems using the MOM6 ocean model (PIs Curchister, Alexander, Adcroft, Resplandy, Siedlecki)

NOAA MAPP (2020-2023) The predictability of oxygen and its metabolic consequences for fisheries on decadal time scales (PIs Siedlecki, Long, Petrik)

NOAA MAPP (2020-2023) Modeling Climate Impacts on Predictability of Fisheries and Other LMRs (PIs Long, Siedlecki, Petrik)

NOAA MAPP (2020-2023) Towards the prediction of fisheries on seasonal to multi-annual time scales (PIs Petrik, Long, Siedlecki)

NSF (2019-2022) Investigation of mechanisms leading to seasonal hypoxia in the Southern Benguela Upwelling System (PIs Granger and Siedlecki)

NOAA OAP (2019-2021) Assessment of the Observing Network to Identify Processes Relevant to the Predictability of the Coastal Ocean of the Northeast on Centennial Time Scales (PIs Siedlecki, Curchister, Alexander, Salisbury, Stock)

NOAA MAPP (2017-2022) Title: Experiments with Seasonal Forecasts of ocean conditions in the Pacific Northwest to aid the crab fishery (PIs Siedlecki, Kaplan, Hermann, Bond, Alin, Newton, Alexander)

PRIOR FUNDING:

NSF/NCAR (2019-2021) NSF/NCAR Early Career Faculty Innovator Program Fellowship (PI Siedlecki)

NOAA MAPP (2017-2020) Title: Downscaled seasonal forecasts for living marine resource management off the US west coast (PIs Jacox, Hazen, Edwards, Fiechter, Alexander).

NOAA OAP (2018-2020) Enhancement of an existing ocean forecast system to include ocean acidification (PIs Alin, Feely, Siedlecki, Hermann)

WOAC (2017-2019) Proposal for development of an Ocean Acidification forecast model (PIs MacCready, Siedlecki, McCabe)

Wendy Schmidt Foundation (2016-2018) Evaluating Local Impacts of Ocean Acidification on the U.S. West Coast (PIs Klingler, Newton, MacCready, Deutsch, Siedlecki)

NOAA FATE (2016-2018) Title: Short-term forecasting of Pacific hake distribution in the California Current Ecosystem (PIs Hunsicker, Brodeur, Haltuch, Hicks, Kaplan, Parker-Stetter, Bond, Hermann, Newton, Siedlecki: 0 months support per year)

NOAA OAP (2015-2017) Enhancement of an existing ocean forecast system to include ocean acidification (PIs Alin, Feely, Siedlecki, Hermann, Bednarsek)

WOAC (2015-2017) Proposal for development of an Ocean Acidification forecast model (PIs MacCready, Siedlecki, McCabe: 4 months of support)

NASA (2013-2016) Novel Blending of Numerical/Statistical Models and Satellite Data to Improve Coastal Ocean Water Quality Predictions, (PIs Anderson, Kudela, Banas, Kahru, Siedlecki: 2 weeks support per year)

NOAA FATE (2013-2016) Refinement of J-SCOPE Forecast System for the California Current Integrated Ecosystem Assessment, (PIs Kaplan, Bond, Hermann, Levin, Newton, Peterson, Siedlecki: 3 months support per year)

AOOS (2013-2016) Creating a Coastal Carbon Model for the Northern Gulf of Alaska to Determine the Controls and Extent of Ocean Acidification Events in the Region (PIs Mathis, Siedlecki: 10 months of support)

NSF-OCE (2012-2015) Collaborative Research: Modeling coastal oxygen production and carbon sequestration, (PIs Samelson, Hales, Ackerman, Siedlecki: 1 month support per year Siedlecki)

WOAC (2013-2015) Proposal for development of an Ocean Acidification forecast model (PIs MacCready, Banas, Siedlecki: 11 months of support)

FIELD EXPERIENCE:

2018	Field course in oceanography cruise at UConn on the <i>RV Connecticut</i>
2015	<i>RV Brown</i> , 34 days, Co-Chief Scientist, CLIVAR Repeat Hydrography Cruise Leg 1 of P16, April-May
2007, 2009	<i>RV Corwith Cramer</i> , 7 days, Teaching Assistant, University of Chicago, Oceanography course at sea, June
2009	<i>RV Wecoma</i> , 20 days, Carbon measurements assistant (pCO ₂ , TCO ₂ , nutrients, oxygen sampling), SUCCESS cruise off the Oregon coast, June and August
2006	<i>RV Thompson</i> , 28 days, CTD watchstander, CLIVAR Repeat Hydrography Cruise Leg 2 of P16 N

TEACHING EXPERIENCE:

2013	Carbon and Climate – co-taught with Abby Swann, UW, Winter Quarter, graduate students
2015	Guest lectures – Carbon and Climate, Winter; Ethics of Geoengineering, Winter Quarter
2018	Reaction and Transport, Spring Quarter; Seminar course, Fall Quarter; Field Course in Oceanography, Fall Quarter
2019	Reaction and Transport, Spring Quarter; Biogeochemical modeling, Fall Quarter
2020	Reaction and Transport, Spring Quarter; Field Course in Oceanography, Fall Quarter
2021	Biogeochemical modeling, Fall Quarter

PRESENTATIONS:

Keynote/Plenary Address

International

Siedlecki, S.A. (2020, September – postponed due to COVID-19) Oceans in a High CO₂ World, plenary, Peru, INVITED

Siedlecki, S. A. (2019, April). Keynote/Plenary Address for the Global Ocean Acidification Observing Network (GOA-ON) workshop, Hangzhou, China.

National/Regional

Siedlecki, S.A., Salisbury, J., Gledhill, D.K., Bastidas, C., Meseck, S., McGarry, K., Hunt, C.W., Alexander, M., Lavoie, D., Wang, Z.A., Scott, J., Brady, D.C., Mlsna, I., Azetsu-Scott, K., Liberti, C.M., Melrose, D.C., White, M., Pershing, A., Vandemark, D., Townsend, D.W., Chen, Changsheng, Mook, W., Morrison, R. . (2019, November) *Anticipated Impacts of Ocean Acidification on the Gulf of Maine During the Next 30*– Keynote Presentation at the Gulf of Maine 2050 International Symposium

Invited Poster

International

Siedlecki, S.A., D. Pilcher, C. Deutsch, H. Frenzel, E.M. Howard, J. Sunday, P. MacCready, J. Newton, & T. Klinger (2018, December). *Regional Attribution of coastal processes to Ω , pH, and carbon variability in Washington and Oregon waters: A modeling study*. Poster for the American Geophysical Union, Washington DC. INVITED

Presentations

International

Siedlecki, S.A., et al. (2020, February) *Winter influences on Summer Hypoxia Variability* Presentation at the Ocean Sciences Meeting, San Diego, CA

McGarry, K.**, Siedlecki, S.A., Alin, S., and Salisbury (2020, February) *Empirical Models for Estimating the Carbonate System Off the Northeastern US from Basic Hydrographic Data: An MLR Approach* Presentation at the Ocean Sciences Meeting, San Diego, CA

McGarry, K.**, S.A. Siedlecki, J. Salisbury, and S. R. Alin (2019, November) *Empirical Models for Estimating the Carbonate System Off the Northeastern US from Basic Hydrographic Data: An MLR Approach* – Presentation at the Gulf of Maine 2050 International Symposium

Berger, H.**_Siedlecki, S. A., Matassa, C, Isaac, K., Alin, S., Pilcher, D., Newton, J., (2020, February) *A Regional Assessment of Dungeness Crab Vulnerability*

to Global Change: Insights from Model Projections. Presentation at the Ocean Sciences Meeting, San Diego, CA

Norton, E. et al. (2020, February) *The Importance of Environmental Exposure History in Forecasting Dungeness Crab *Megalopae* Occurrence Using J-SCOPE, a High-Resolution Model for the US Pacific Northwest*. Poster at the Ocean Sciences Meeting, San Diego, CA

Ray, S.*, Siedlecki, S.A., Alexander, M.A., Hermann, A.J., & Bond, N. (2020, February) *Seasonal-to-Interannual Drivers of Bottom Temperature Conditions in the Northern California Current System*. Poster at the Ocean Sciences Meeting, San Diego, CA

Ray, S.*, Siedlecki, S.A., Kaplan, I., Hermann, A.J., Bond, N.A., Norton, E.L., Newton, J.A., Alin, S.R., Alexander, M.A., & Fewings, M.R. (2018, December) *Mechanisms Driving Bottom Temperature Predictability off Washington-Oregon Coast – Do They Differ from the Surface?* Poster at the AGU Meeting, Washington D.C.

Siedlecki, S.A. (2019, June) SCOR-IOC programme GlobalHAB joint with GO₂NE, UNESCO, Paris, INVITED

Berger, H.***, Siedlecki, S. A., Alin, S., Isaac, K., Pilcher, D., Newton, J., & Matassa, C. (2019, April). *Using regional oceanographic forecasts to assess the vulnerability of the Dungeness crab to climate change stressors*. Presentation for the Benthic Ecology Meeting, St. John's Newfoundland.

Flynn, R., Granger, J., Veitch, J., Siedlecki, S., & Fawcett, S. (2019, February). *Inshore nutrient trapping increases the fertility of the Southern Benguela Upwelling System*. Presentation for the ASLO meeting, San Juan, Puerto Rico, PR.

SIEDLECKI, S. (2018, February). *Winter-driven Summer Hypoxic Volume*. Presentation for the AGU/ASLO Ocean Sciences Meeting, Portland, OR.

SIEDLECKI, S. (2017, November). *Seasonal Forecasts of Ocean Acidification in Washington and Oregon Waters*. Presentation for the CERF, Providence, RI.

National

Siedlecki, S.A. (2020, June) *Modeling and Forecasting OA and HABs to meet stakeholders needs – Regional Perspectives*. Webinar OA HAB <https://oceanacidification.noaa.gov/HABOA2020.aspx>, INVITED

Siedlecki, S.A., (2019, June) *Processes that drive variability of hypoxia in the coastal ocean: examples from the west coast of the US Ocean Carbon Biogeochemistry (OCB) Summer Workshop*, WHOI, INVITED

Siedlecki, S. (2018, February). Presentation for the Ocean Acidification PI workshop, Portland, OR. INVITED

State/Regional

Siedlecki, S.A., (2020, June) *Modeling the Magnitude, Extent, and Potential Impacts of Acidification on the Northeastern Shelf: implications for the LIS Region*. LISS STAC meeting, webinar, INVITED

Siedlecki, S. A. (2019, May). Presentation for the Washington Ocean Acidification Center Symposium, Seattle, WA

Siedlecki, S. (2018, September). Presentation for the 71st Annual Shellfish Growers Conference and Trade Show.

Siedlecki, S. (2018, September). Presentation for the Eastern Pacific Ocean Conference

Siedlecki, S. (2018, April). Presentation for the Coastal ocean acidification in the North Atlantic region, from science to outreach. INVITED

Siedlecki, S. (2018, February). Presentation for the Fishery Ecosystem Plan Initiative on Climate and Communities Webinar Series 2018. INVITED

Siedlecki, S. (2018, January). Webinar presentation for the California Coastal Acidification Network (C-CAN). INVITED

Local

Siedlecki, S.A. et al. (2020, January) *Dynamically downscaled climate change projections of multiple marine ecosystem stressors for the California Current System* Presentation for the URI seminar series. INVITED

Siedlecki, S.A. (2019, October) *Predicting the Future Ocean* Faculty Presentation in Honor of the Inauguration of Thomas Katsouleas, Storrs, CT, INVITED

Siedlecki, S.A. (2019, September) *University Collaborations that Support Modeling and Forecasting*. OA Alliance, Brooklyn, New York, INVITED

Siedlecki et al. (2019, August) *Hypoxia and Ω variability in the coastal ocean: Processes that lead to predictability - examples from the west coast*. Presentation for the NCAR Seminar series

Siedlecki, S. A. (2019, May). *Hypoxia and Ω in the coastal ocean: Processes that drive variability - examples from the west coast*. Presentation for the Lamont/Columbia Geochemistry Seminar Series. INVITED

Siedlecki, S. A. (2019, March). *Hypoxia and Ω in the coastal ocean: Processes that drive variability - examples from the west coast*. Presentation for the Stonybrook Seminar series. INVITED

Siedlecki, S. A. (2018, October). *Hypoxia and Ω in the coastal ocean: Processes that drive variability - examples from the west coast*. Presentation for the School for Marine Science and Technology (SMAST) at University of Massachusetts, Dartmouth seminar. INVITED

Siedlecki, S. A. (2018, August). *Hypoxia and Ω in the coastal ocean: Processes that drive variability - examples from the west coast*. Presentation for the Coastal & Ocean Fluid Dynamics Group (COFDL) at Woods Hole Oceanographic Institution (WHOI). INVITED

Siedlecki, S. (2017, December). *Hypoxia and Ω in the coastal ocean: Processes that drive variability - examples from the west coast*. Presentation for the Fall Seminar Series at Rutgers University. INVITED

Kavli Frontiers of Science US-China symposium, October 2016

The workshop, Forecasting ENSO Impacts on Marine Ecosystems of the US West Coast, August 2016

Texas A&M. January, 2016, *Predicting Hypoxia and Ocean Acidification of the coastal waters of the CCS: What do we know and what can we expect?*

Gordon Research Conference – Coastal Ocean Modeling. June, 2015, *Predicting Hypoxia and Ocean Acidification in coastal waters: What do we know and what can we expect?*

OAI RUG – Ocean acidification, getting ahead of the curve, Monaco, January, 2015, *Forecast Models: How good are they and how can we validate them?*

CALCOFI Symposium - Prediction of the California Current System, Scripps Institute of Oceanography, December, 2014: *Predicting Hypoxia and Ocean Acidification of the coastal waters of the CCS: What do we know and what can we expect?*

PCC seminar, University of Washington. November 2013: *Seasonal Forecasting of Hypoxia and Ocean Acidification on the Washington Shelf*

IPOC seminar, University of Washington. November, 2013: *Seasonal Forecasting of Hypoxia and Ocean Acidification on the Washington Shelf*

Chemical Oceanography seminar, University of South Florida, February, 2013: *Connecting the Biogeochemistry of the Coastal Ocean with the Open Ocean: The Role of the Bottom Boundary Layer*

Oceanography Seminar, United States Naval Academy, March, 2013: *Connecting the Biogeochemistry of the Coastal Ocean with the Open Ocean: The Role of the Bottom Boundary Layer*

FOCI seminar, NOAA – PMEL, February, 2011: *The role of the bottom boundary layer in biogeochemical cycles of coastal upwelling systems*

University of Wisconsin – Madison. August, 2010: *The role of the bottom boundary layer in biogeochemical cycles of the coastal ocean*

PROFESSIONAL SERVICE:

2019 – *present* co-chair NECAN

2019-2020 Co-convener, AGU/ASLO OSM 2020

2016 - 2018 Co-author NCA4 Chapter on Oceans and Marine Resources

2016 - 2018 Co-author SOCCR Chapter on Coastal Oceans

2011 - 2016 Co-lead for the Northern CCS, North American Carbon Program Coastal Interim Synthesis Activity, 2011–2018

2015, 2016 - Summer High School Internship in Aquatic Chemistry Mentor

2015 Co-Conference Chair, EPOC, Fallen Leaf Lake, CA

2013 Co-convener, CERF, *Modeling Ocean Acidification in the Coastal Ocean and Estuaries*

2012 Co-convener, EPOC, *Deoxygenation and acidification in waters of the Eastern Pacific*

2011 Co-convener, AGU, *Eastern Boundary Ocean Margin Carbon Cycles*

NSF- OCE, CO proposal review

NSF – OCE, PO proposal review

NSF, NASA and NOAA Proposal Review Panelist

Reviewer for Journals: Journal of Geophysical Research, Geophysical Research Letters, Journal of Physical Oceanography, Science of the Total Environment, Biogeosciences, Progress in Oceanography, Global Biogeochemical Cycles, Science, ICES Journal of Marine Science, Estuaries and Coasts, JAMES