CURRICULUM VITAE

PERSONAL INFO:

Samantha Siedlecki
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Department of Marine Sciences
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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:

2024-2025	Fulbright Global Scholar
2023-*present*	*Associate Professor*, Department of Marine Sciences, College of Liberal Arts and Sciences, University of Connecticut
2024-2025	*Fulbright Global Scholar*
2019-*2021*	NSF/NCAR Early Career Faculty Innovator Program
2017-*2023*	*Assistant Professor*, Department of Marine Sciences, College of Liberal Arts and Sciences, University of Connecticut
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

SELECT PEER-REVIEWED PUBLICATIONS:

48. Chen, Z., **Siedlecki, S.,** Long, M. et al. Skillful multiyear prediction of marine habitat shifts jointly constrained by ocean temperature and dissolved oxygen. Nat Commun 15, 900 (2024). https://doi.org/10.1038/s41467-024-45016-5
47. Alin, S. R., Newton, J. A., Feely, R. A., **Siedlecki, S**., and Greeley, D.: Seasonality and response of ocean acidification and hypoxia to major environmental anomalies in the southern Salish Sea, North America (2014–2018), Biogeosciences, 21, 1639–1673, https://doi.org/10.5194/bg-21-1639-2024, 2024.
46. Michael J. Malick, Mary E. Hunsicker, Melissa A. Haltuch, Sandra L. Parker, Stetter, Kristin N. Marshall, John E. Pohl, Aaron M. Berger, Samantha A. Siedlecki, Stéphane Gauthier, and Albert J. Hermann. 2024. Spatially varying effects of the California Undercurrent on Pacific hake distribution. *Canadian Journal of Fisheries and Aquatic Sciences*. **81**(2): 154-165. https://doi.org/10.1139/cjfas-2023-0202
45. Ross, A. C., Stock, C. A., Adcroft, A., Curchitser, E., Hallberg, R., Harrison, M. J., Hedstrom, K., Zadeh, N., Alexander, M., Chen, W., Drenkard, E. J., du Pontavice, H., Dussin, R., Gomez, F., John, J. G., Kang, D., Lavoie, D., Resplandy, L., Roobaert, A., Saba, V., Shin, S.-I., **Siedlecki, S.,** and Simkins, J.: A high-resolution physical-biogeochemical model for marine resource applications in the Northwest Atlantic (MOM6-COBALT-NWA12 v1.0), Geosci. Model Dev. Discuss. https://doi.org/10.5194/gmd-2023-99, 2023.

44. **Siedlecki, S.A.,** S.R. Alin, E.L. Norton, N.A. Bond, A.J. Hermann, R.A. Feely, and J.A. Newton. 2023. Can seasonal forecasts of ocean conditions aid fishery managers? Experiences from 10 years of J-SCOPE. *Oceanography*, https://doi.org/10.5670/ oceanog.2023.219.
43. Alin, S.R., **S.A. Siedlecki**, H. Berger, R.A. Feely, J. Waddell, B.R. Carter, J.A. Newton, E.J. Schumacker, and D. Ayres. 2023. Evaluating the evolving ocean acidification risk to Dungeness crab on the Olympic coast of Washington, USA, using time-series obser- vations and modeling. *Oceanography* 36(2),
39. Norton, EL, Kaplan, IC, **Siedlecki, SA**., Hermann, AJ, Alin, SR, Newton, J., Corbett, K., Ayres, D., Schumacker, EJ., Bond, NA., Richerson, K., & Alexander, MA. (2023) Seasonal ocean forecasts to improve predictions of Dungeness crab catch rates, co-developed with state and tribal fishery managers, ICES Journal of Marine Science, fsad010, https://doi.org/10.1093/icesjms/fsad010
38. Ray, S.*, Bond, N., **Siedlecki, S**., & Hermann, A. J. (2022). Influence of winter subsurface on the following summer variability in Northern California Current System. Journal of Geophysical Research: Oceans, 127, e2022JC018577. https://doi.org/10.1029/2022JC018577
37. Sunday, J. M., Howard, E., **Siedlecki, S.A.,** Pilcher, D. J., Deutsch, C., MacCready, P., Newton, J., & Klinger, T. (2022). Biological sensitivities to high-resolution climate change projections in the California current marine ecosystem. *Global Change Biology*, 00, 1– 15. https://doi.org/10.1111/gcb.16317

34. Berger, H. M.**, **Siedlecki, S. A.,** Matassa, C. M., Alin, S. R., Kaplan, I. C., Hodgson, E. E., et al. (2021). Seasonality and life history complexity determine vulnerability of Dungeness crab to multiple climate stressors. *AGU Advances*, 2, e2021AV000456. https://doi.org/10.1029/2021AV000456

***student*

33. 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. (2021). 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.

32. 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.M., Pershing, A., Vandemark, D., Townsend, D.W., Chen, C., Mook, W., and Morrison, R. (2021). Projecting ocean acidification impacts for the Gulf of Maine to 2050: New tools and expectations. *Elementa: Science of the Anthropocene*, 9 (1): 00062. doi: https://doi.org/10.1525/elementa.2020.00062

***student*

31. McGarry, K.**, **Siedlecki, S.A.,** Salisbury, J., and Alin, S.R. (2021). Multiple linear regression models for reconstructing and exploring processes controlling the carbonate system of the northeast US from basic hydrographic data. *Journal of Geophysical Research- Oceans*, 126, e2020JC016480. https://doi.org/10.1029/2020JC016480

***student*

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

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

* *postdoc*

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

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.2020.0010

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

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.**, Samhouri, 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

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

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.
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 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**

PROFESSIONAL SERVICE:

2024-present.	CLIVAR working group co-lead
2023	GOOD-OARS-COPAS Summer school in Chile
2020-present	OARS co-champion
2020-present.	CoastPredict steering committee
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 - 2015	Summer High School Internship in Aquatic Chemistry Mentor Co-Conference Chair, EPOC, Fallen Leaf Lake, CA

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, Nature, Ecological Modeling, L&O, JAMES