

Hilde Oliver

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Updated 2026-08-31

EDUCATION

2019 **Ph.D.**, Marine Sciences, University of Georgia
2014 **B.S.**, *magna cum laude*, Mathematics, University of South Carolina

PROFESSIONAL EXPERIENCE

2025 — **Assistant Scientist II**, Department of Applied Ocean Physics and Engineering
Woods Hole Oceanographic Institution
2021 — 2025 **Assistant Scientist I**, Department of Applied Ocean Physics and Engineering
Woods Hole Oceanographic Institution
2019 — 2021 **Postdoctoral Scholar**, Department of Applied Ocean Physics and Engineering
Woods Hole Oceanographic Institution
2014 — 2019 **Graduate Research Fellow**, Department of Marine Sciences
University of Georgia

RESEARCH INTERESTS

Physical-biological interactions. Polar, subpolar, and coastal physical oceanography and biogeochemistry. Environmental controls on phytoplankton ecology. Coupled physical-biogeochemical numerical modeling.

HONORS AND AWARDS

2025 WHOI Early Career Scientist Award (supported by the Harris Family Fellowship fund and the Lenfest Fund for Early Career Scientists)
2024 AGU Outstanding Reviewer Citation for JGR: Oceans
2024 L&O Letters Early Career Publication Honor
2019 — 2021 WHOI Weston Howland Jr. Postdoctoral Scholar Award
2019 UGA Marine Sciences Departmental Graduate Research Award
2019 AGU Outstanding Student Presentation Award
2015 — 2019 NSF Graduate Research Fellowship
2014 NSF Antarctica Service Medal
2014 — 2019 UGA Presidential Graduate Fellowship

REFEREED JOURNAL PUBLICATIONS (Underline indicates postdoctoral advisee)

- [29] Huang, X, Gu, Y., **Oliver, H.**, Carroll D., Juul-Pedersen, T., Meire L., & Hopwood, M. J. (2026). Insights Into the Influence of the Greenland Ice Sheet on Oceanic Macronutrient Dynamics From Decades of Historical Data. *Global Biogeochemical Cycles*, 40, e2025GB008541. <https://doi.org/10.1029/2025GB008541>.
- [28] Stanley, R. H. R., Kronberg, Z., Sosik, H. M., Baldwin L., O'Hern, N., Cahill K., Crockford, E. T., **Oliver, H.**, Peacock, E. E., Sandwith, Z. O., Zhang, W. G., Zheng, B., & McGillicuddy, D. J. (2025). Localized and episodic enhancement of net community production and phytoplankton carbon in spring

- and summer at the Northeastern US shelfbreak front. *Limnology and Oceanography*, 70: 3926-3941. <https://doi.org/10.1002/lno.70247>.
- [27] **Oliver, H.**, Turner, J. S., Castagna, A., Houskeeper, H., & Dierssen, H. (2025). High Antarctic coastal productivity in polynyas revealed by considering remote sensing ice-adjacency effects. *L&O Letters*, 10: 945-956. <https://doi.org/10.1002/lol2.70043>. **L&O Letters Early Career Publication Honor**.
 - [26] Hopwood, M. J., Schjøtt, S., & **Oliver, H.** (2025). Glacier geoengineering may have unintended consequences for marine ecosystems and fisheries (Comment). *AGU Advances*, 6, e2025AV001732. <https://doi.org/10.1029/2025AV001732>. **Eos highlight**.
 - [25] Wood, M., Carroll, D., Fenty, I., Bertin, C., Darby, B., Dutkiewicz, S., Hopwood, M., Khazendar, A., Meire, L., **Oliver, H.**, Parker, T., & Willis, J. (2025). Increased melt from Greenland's most active glacier fuels enhanced coastal productivity. *Communications Earth and Environment*, 6, 626. <https://doi.org/10.1038/s43247-025-02599-1>. **JPL press release**.
 - [24] Balch, W. M., McGillicuddy, D. J., Bates, N. R., Morton P. L., Drapeau D., Bowler, B., Pinkham, S., Enright, M., Garley, R., & **Oliver, H.** (2025). Biological, biogeochemical, bio-optical, and physical variability of the Southern Ocean along 150°W, and its relevance to the Great Calcite Belt. *Global Biogeochemical Cycles*, 39, e2024GB008457. <https://doi.org/10.1029/2024GB008457>. **Bigelow press release. Eos highlight**.
 - [23] Silver, A., **Oliver, H.**, Gawarkiewicz, G., Fratantoni, P., & Salois, S. L. (2025). Forecasting and Seasonal Variability of a Significant Faunal Boundary: The Foot of the Shelfbreak Front in the Northern Middle Atlantic Bight. *ICES Journal of Marine Science*, 82(2), fsae156, <https://doi.org/10.1093/icesjms/fsae156>
 - [22] **Oliver, H.**, Krumhardt, K. M., McGillicuddy, D. J., Mitchell, C., & Balch, W. M. (2024). Mechanisms regulating coccolithophore dynamics in the Great Calcite Belt in the Southern Ocean in the Community Earth System Model. *Journal of Geophysical Research: Oceans*, 129, e2024JC021371. <https://doi.org/10.1029/2024JC021371>
 - [21] Zhu, Y., Selden, C. R., McGillicuddy, D. J., Chappell, P. D., Zhang, W. G., Meyer, M. G., Crider, K., **Oliver, H.**, & Clayton, S. (2024). Contrasting Nitrogen and Nitrifier Dynamics in the Euphotic Zone across the Mid-Atlantic Bight Shelfbreak Front. *Limnology & Oceanography*, 69, 2406-2421. <https://doi.org/10.1002/lno.12678>
 - [20] Gifford, I., Gangopadhyay, A., Andres, M., **Oliver, H.**, Gawarkiewicz, G., & Silver, A. (2024). The Synchronicity between the Gulf Stream Path and the Region of Maximum Wind Stress Curl. *Scientific Reports*, 14, 18479. <https://doi.org/10.1038/s41598-024-68461-0>
 - [19] Palevsky H. I., Clayton S., Benway H., & 36 others inc. **Oliver, H.** (2024). A model for community-driven development of best practices: the Ocean Observatories Initiative Biogeochemical Sensor Data Best Practices and User Guide. *Frontiers in Marine Science* (Perspective Article), 11, 1358591. <https://doi.org/10.3389/fmars.2024.1358591>
 - [18] Castelao, R. M., **Oliver, H.**, & Medeiros., P. M. (2023). Satellite-derived Lagrangian transport pathways in the Labrador Sea. *Remote Sensing*, 15(23), 5545. <https://doi.org/10.3390/rs15235545>
 - [17] **Oliver, H.**, McGillicuddy, D. J., Krumhardt, K. M., Long, M. C., Bates, N. R., Bowler, B. C., Drapeau, D. T., & Balch, W. M. (2023). Environmental drivers of coccolithophore growth in the Pacific sector of the Southern Ocean. *Global Biogeochemical Cycles*, 37(11), e2023GB007751. <https://doi.org/10.1029/2023GB007751>
 - [16] Hirzel, A. J., Alatalo, P., **Oliver, H.**, Petitpas, C. M., Turner, J. T., Zhang, W. G., & McGillicuddy, D. J. (2023). High Resolution Analysis of Plankton Distributions at the Middle Atlantic Bight Shelf-Break Front. *Continental Shelf Research*, 267, 105113. <https://doi.org/10.1016/j.csr.2023.105113>
 - [15] **Oliver, H.**, Slater, D., Carroll, D., Wood, M., Morlighem, M., Hopwood, M. J. (2023). Greenland subglacial discharge as a driver of hotspots of increasing coastal chlorophyll since the early 2000s. *Geophysical Research Letters*, 50(10), e2022GL102689. <https://doi.org/10.1029/2022GL102689>
 - [14] Zhang, W. G., Alatalo, P., Crockford, E.T., Hirzel, A. J., Meyer, M. G., **Oliver, H.**, Peacock, E., Petitpas, C. M., Sandwith, Z., Smith, W. O., Sosik, H. M., Stanley, R. H. R., Stevens, B. L. F., Turner, J. T., & McGillicuddy, D. J. (2023). Cross-shelf Exchange Associated with a Shelf-

- Water Streamer at the Mid-Atlantic Bight Shelf Edge. *Progress in Oceanography*, 210, 102931. <https://doi.org/10.1016/j.pocean.2022.102931>
- [13] Slater, D. A., Carroll, D., **Oliver, H.**, Hopwood, M. J., Straneo, F., Wood, M., Willis, J. K., & Morlighem, M. (2022). Characteristic depths, fluxes, and timescales for Greenland's tidewater glacier fjords from subglacial discharge-driven upwelling during summer. *Geophysical Research Letters*, 49(10), e2021GL097081. <https://doi.org/10.1029/2021GL097081>
 - [12] **Oliver, H.**, Zhang, W. G., Archibald, K. M., Hirzel, A. J., Smith, W. O., Sosik, H. M., Stanley, R. H. R., & McGillicuddy, D. J. (2022). Ephemeral surface chlorophyll enhancement at the New England shelf break driven by Ekman restratification. *Journal of Geophysical Research: Oceans*, 127(1), e2021JC017715. <https://doi.org/10.1029/2021JC017715>
 - [11] **Oliver, H.**, Zhang, W. G., Smith, W. O., Alatalo, P., Chappell, P. D., Hirzel, A. J., Selden, C. R., Sosik, H. M., Stanley, R. H. R., Zhu, Y., & McGillicuddy, D. J. (2021). Diatom Hotspots Driven by Western Boundary Current Instability. *Geophysical Research Letters*, 48(11), e2020GL091943. <https://doi.org/10.1029/2020GL091943>. **Eos highlight. WHOI press release.**
 - [10] Smith, W. O., Zhang, W. G., Hirzel, A., Stanley, R. H. R., Meyer, M., Sosik, H. M., Alatalo, P., **Oliver, H.**, Sandwith, Z., Crockford, T., Peacock, E., Mehta, A., & McGillicuddy, D. J. (2021). A regional, early spring bloom of *Phaeocystis pouchetii* on the New England continental shelf. A Regional, Early Spring Bloom of *Phaeocystis pouchetii* on the New England Continental Shelf. *Journal of Geophysical Research: Oceans*, 126(2), 2020JC016856. <https://doi.org/10.1029/2020JC016856>. **WHOI press release.**
 - [9] **Oliver, H.**, Castelao, R. M., Wang, C., & Yager, P. L. (2020). Meltwater-Enhanced Nutrient Export from Greenland's Glacial Fjords: A Sensitivity Analysis. *Journal of Geophysical Research: Oceans*, 125(7), 1–18. <https://doi.org/10.1029/2020JC016185>
 - [8] Castelao, R. M., Luo, H., **Oliver, H.**, Rennermalm, Å. K., Tedesco, M., Bracco, A., Yager, P. L., Mote, T. L., & Medeiros, P. M. (2019). Controls on the transport of meltwater from the southern Greenland ice sheet in the Labrador Sea. *Journal of Geophysical Research: Oceans*, 124, 3551–3560. <https://doi.org/10.1029/2019JC015159>
 - [7] **Oliver H.**, St-Laurent, P., Sherrell, R. M., & Yager, P. L. (2019). Modeling iron and light controls on the summer *Phaeocystis antarctica* bloom in the Amundsen Sea Polynya. *Global Biogeochemical Cycles*, 33, 570–596. <https://doi.org/10.1029/2018GB006168>
 - [6] St-Laurent, P., Yager, P. L., Sherrell, R. M., **Oliver, H.**, Dinniman, M. S., & Stammerjohn, S. E. (2019). Modeling the Seasonal Cycle of Iron and Carbon Fluxes in the Amundsen Sea Polynya, Antarctica. *Journal of Geophysical Research: Oceans*, 124(3), 1544–1565. <https://doi.org/10.1029/2018JC014773>
 - [5] Rognstad, R. L., Wetthey, D. S., **Oliver, H.**, & Hilbish, T. J. (2018). Connectivity modeling and graph theory analysis predict recolonization in transient populations. *Journal of Marine Systems*, 183, 13–22. <https://doi.org/10.1016/j.jmarsys.2018.03.002>
 - [4] **Oliver, H.**, Luo, H., Castelao, R. M., van Dijken, G. L., Mattingly, K. S., Rosen, J. J., Mote, T. L., Arrigo, K. R., Rennermalm, Å. K., Tedesco, M., & Yager, P. L. (2018). Exploring the Potential Impact of Greenland Meltwater on Stratification, Photosynthetically Active Radiation, and Primary Production in the Labrador Sea. *Journal of Geophysical Research: Oceans*, 2570–2591. <https://doi.org/10.1002/2018JC013802>
 - [3] Arrigo, K. R., van Dijken, G. L., Castelao, R. M., Luo, H., Rennermalm, Å. K., Tedesco, M., Mote, T. L., **Oliver H.**, & Yager, P. L. (2017). Melting glaciers stimulate large summer phytoplankton blooms in southwest Greenland waters. *Geophysical Research Letters*, 44, 6278–6285. <https://doi.org/10.1002/2017GL073583>
 - [2] **Oliver, H.**, Rognstad, R., & Wetthey, D. (2015). Using meteorological reanalysis data for multi-decadal hindcasts of larval connectivity in the coastal ocean. *Marine Ecology Progress Series*, 530, 47–62. <https://doi.org/10.3354/meps11300>
 - [1] Deiterding, R., Glowinski, R., **Oliver, H.**, & Poole, S. (2013). A Reliable Split-Step Fourier Method for the Propagation Equation of Ultra-Fast Pulses in Single-Mode Optical Fibers. *Journal of Lightwave Technology*, 31(12), 2008–2017. <https://doi.org/10.1109/JLT.2013.2262654>

Submitted/In Revision

- [8] Veatch, J., McGillicuddy, D. J., & **Oliver, H.** (Submitted). Finite Lyapunov Exponents and their Application to Ocean Dynamics: Toward A Practical Framework for Implementation and Parameter Selection.
- [7] Ruan, Y., Hopwood, M. H., Laufer-Meiser, K., **Oliver, H.**, Cloete, R., Debyser, M., Guo, Y., Nicolas, A., Jasiński, D., Vijayan, A.P., Camin, C., Planquette, H., & Achterberg, E. P. (Submitted). Cold storage: Efficient trapping of iron in Greenland's fjords.
- [6] Huang, X., Ruan, Y., Laufer-Meiser, K., **Oliver, H.**, Achterberg, E. P., Mutzberg, A., & Hopwood, M. H. (In revision for *Nature Communications*). Silica budgets reveal Arctic glacier fjords are efficient silica sinks.
- [5] Ruan, Y., Achterberg, E. P., **Oliver, H.**, Taenzer, L., Huang, X., Andresen, C., & Hopwood, M. H. (Revised and resubmitted to *L&O Letters*). Hidden subsurface sediment discharge from Greenland's marine terminating glaciers.
- [4] **Oliver, H.**, Śliwiński, J. J., Diou-Cass, Q., Meyer, M. G., Boehme, L., Dierssen, H. M., Dotto, T. S., Glassup, F., Hall, R. A., Heywood, K. J., Medeiros, P. M., Pickup, D. D., Schofield, O., Sosik, H. M., Stammerjohn, S. E., Turner, J., & Queste, B. Y. (In revision for *Science Advances*). Light stress triggers phytoplankton bloom collapse in a productive Antarctic coastal polynya.
- [3] Balch, W. M., McGillicuddy, D. J., **Oliver, H.**, Bates, N. R., Morton P. L., Drapeau D. T., Pinkham, S. R., Bowler, B. C., Garley R., Enright, M., & Happell J. (Revised and resubmitted to *Journal of Geophysical Research: Oceans*). On the differential conditioning of Sub-Antarctic Mode Water and Antarctic Intermediate Water over decadal time scales.
- [2] Herbert, L. C., St-Laurent, P., **Oliver, H.**, Steffen, J., Cohen, C., Fitzsimmons, J., Wellner, J., Yager, P. L., & Sherrell, R. M. (Submitted). Benthic Iron Fluxes in the Amundsen Sea Driven by Nonreductive Dissolution and Potential Trace Metal Release from Phytodetritus.
- [1] Silver, A., **Oliver, H.**, & Gawarkiewicz G. (Revised and resubmitted to *Journal of Geophysical Research: Oceans*). Low-Frequency Variability in Cross-Channel Velocities over the Northeast Channel; Over 30 Year Census of Scotian Shelf Crossovers.

OTHER PUBLICATIONS

Palevsky, H.I., Clayton, S., & 23 others inc. **Oliver, H.** (2022) OOI Biogeochemical Sensor Data: Best Practices & User Guide, Version 1.1.1. [GOOS ENDORSED PRACTICE]. Ocean Observatories Initiative, Biogeochemical Sensor Data Working Group, 134pp. <http://https://doi.org/10.25607/OBP-1865.2>

Oliver, H. (2019). Physical controls on light and nutrients in coastal regions receiving large fluxes of glacial meltwater. Doctoral Dissertation, University of Georgia.

Clarke, A., Peck, L. S. & **Oliver, H.** (2019), Polar Ecosystems, in *Encyclopedia of Ocean Sciences (Third Edition)*, edited by J. K. Cochran, H. J. Bokuniewicz, and P. L. Yager, pp. 771–777, Academic Press, Oxford.

OCEANOGRAPHIC FIELDWORK (9 CRUISES, 282 DAYS AT SEA)

- | | |
|------|--|
| 2026 | R/V Falkor (too), 25 days, western tropical North Atlantic
CTD and SUNA operations, nutrient sampling, Sargassum sampling and spectrometry
Project: Salt Finger Processes Influence on Carbon & Ecosystem Dynamics (SPICE)

RRS James Cook, 19 days, Labrador Sea (AR7W)
IFCB operations
Project: Fisheries and Oceans Canada (DFO) Atlantic Zone Off-Shelf Monitoring Program (AZOMP) |
| 2025 | RRS James Cook, 20 days, west Greenland shelf and Labrador Sea
$\delta^{18}\text{O}$ isotope sampling, ASD radiometry
Project: Resolving Biological carbon Export in the Labrador Sea (ReBELS) |

2024	R/V Maria S. Merian, 37 days, southeast Greenland shelf and fjords CTD/Physical Oceanography Team Lead Project: POLAR BEAST
2022	R/V Nathaniel B. Palmer, 63 days, Amundsen Sea, Antarctica (Dotson/Getz) Pigment and nutrient sampling; ASD, IFCB, miniFIRE, PicoLiF operations Project: Accelerating Thwaites Ecosystem Impacts for the Southern Ocean (ARTEMIS)
2020—2021	R/V Roger Revelle, 60 days, Pacific Sector of the Southern Ocean Video Plankton Recorder operations Project: Biogeochemical and Physical Conditioning of Sub-Antarctic Mode Water
2019	R/V Thomas G. Thompson, 13 days, New England Shelfbreak CTD profiling and real-time data analysis Project: Shelfbreak Productivity Interdisciplinary Research Operation at the Pioneer Array (SPIROPA)
2019	R/V Ronald H. Brown, 13 days, New England Shelfbreak CTD profiling and real-time data analysis Project: Shelfbreak Productivity Interdisciplinary Research Operation at the Pioneer Array (SPIROPA)
2014	R/V Nathaniel B. Palmer, 32 days, West Antarctic Peninsula Pigments, nutrients, and microscopy Project: Adaptive Responses of Phaeocystis populations in Antarctic ecosystems (Phantastic II)

Cruises Provided Onshore Remote Sensing Support

2024	GEOTRACES SIO, R/V Sonne, 53 days, South Indian Ocean
2023—2024	U.S. GEOTRACES GP17-ANT, R/V Nathaniel B. Palmer, 61 days, Amundsen Sea

MENTORING AND SUPERVISION

Students

Jan Śliwiński (2023—2024, Göteborgs Universitet Master in Marine Science, coadvised with Bastien Queste)

PhD Committee Member

Aiden Schuster (2026—, University of Georgia)

Postdocs

Jackie Veatch (2024—, NSF OCE Postdoctoral Research Fellow, coadvised with Dennis McGillicuddy)

Adrienne Silver (2023—2024, WHOI Postdoctoral Investigator, coadvised with Glen Gawarkiewicz)

PROFESSIONAL ACTIVITIES

2025—	Southern Ocean Observing System (SOOS) Amundsen and Bellingshausen Sector (ABS) Regional Working Group Leadership Team, Co-chair 2026—present
2026	Ocean Sciences Meeting session co-convenor: "Biophysical Interactions at the Poles: From the Coasts to the Open Ocean"
2025	Xiamen Symposium on Marine Environmental Sciences (XMAS) session co-convenor: "The biogeochemistry of trace metals in a changing ocean"
2024	AGU Fall Meeting session co-convenor: "The Birth, Life, and Death of Icebergs: Sentinels of Change"
2024	NSF OOI Community Workshop: Pioneer MAB Array. Plenary speaker.
2023	OCB Scoping Workshop: Building a Cost-effective Coastal Biogeochemical Observing Network in Collaboration with the Commercial Fishing Community

2021—2022	Ocean Observatories Initiative BGC Sensor Working Group
2022	Ocean Sciences Meeting session co-convener "Shelf-break frontal dynamics: integrating biological, biogeochemical and physical observations for a holistic view of ecosystem function"
2021	Ocean Observatories Initiative Innovations Lab, Phase II
2016—2017	Southeastern Biogeochemistry Symposium (SBS) graduate student steering committee

WHOI INTERNAL SERVICE

2026—	WHOI HPC Advisory Committee
2023—	Scientific Staff Executive Committee (SciSEC), Co-chair 2024—2025
2025	AOP&E Department Chair Search Committee
2019—2022	Women's Committee
2022	AOP&E Seminar Co-Coordinator

INVITED SEMINARS

2025	UConn Department of Marine Sciences "Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"
2025	ODU Department of Ocean & Earth Sciences "Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"
2025	British Antarctic Survey, Cambridge, UK "Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"
2025	National Oceanography Centre, Southampton, UK "Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"
2025	University of East Anglia, Norwich, UK "Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"
2025	Southern University of Science and Technology, Shenzhen, Guangdong, China "What drives ephemeral surface chlorophyll enhancements at the New England shelf break?"
2024	University of South Florida College of Marine Science "Environmental drivers of coccolithophore growth in the Pacific sector of the Southern Ocean."
2022	Rutgers University Department of Marine and Coastal Sciences "Subsurface diatom hotspots in the Middle Atlantic Bight Slope Sea driven by Gulf Stream Intrusions."
2022	UConn Department of Marine Sciences "Subsurface diatom hotspots driven by Gulf Stream meandering."
2021	UMass Dartmouth School for Marine Science & Technology (SMAST) "Subsurface Diatom Hotspots in the Middle-Atlantic Bight Slope Sea Driven by Gulf Stream Meandering."
2021	WHOI Department of Applied Ocean Physics & Engineering "Diatom Hotspots Driven by Western Boundary Current Instability."

2019	UGA Department of Marine Sciences Guest lecture on primary productivity, Marine Biology
2019	UGA Department of Marine Sciences Guest lecture on Antarctic Ecosystems (Virtual), Intro. to the Marine Environment
2019	UGA Department of Marine Sciences Guest lecture on Low frequency variability, Migrations in the Sea
2018	UGA Department of Marine Sciences Guest lecture on Trace metals in the sea, Chemical and Biological Oceanography
2018	UGA Department of Marine Sciences Guest lecture on El Niño, Introduction to the Marine Environment

PUBLISHED ABSTRACTS

- 2026 **Oliver, H.**, Schuster, A. J., Hopwood, M. J., & Castelao, R. M. "Subsurface pathways of glacial meltwater on the southeast Greenland shelf." Poster Presentation, Ocean Sciences Meeting, Glasgow, Scotland.
- Herbert, L., Ohayon, A., Baco-Taylor, A., St-Laurent, P., Steffen, J., Fitzsimmons, J. N., **Oliver, H.**, Wellner J., Yager, P. L., & Sherrell, R. M. "Ecological controls on sediment geochemistry and trace metal cycling in the Amundsen Sea, West Antarctica." Oral Presentation, Ocean Sciences Meeting, Glasgow, Scotland.
- Veatch, J., **Oliver, H.**, & McGillicuddy, D. J. "Observing Episodic Contribution of Antarctic Circumpolar Current Fronts to Southern Ocean Biologically Mediated Carbon Fluxes." Poster Presentation, Ocean Sciences Meeting, Glasgow, Scotland.
- Castelao, R. M., **Oliver, H.**, & Medeiros, P. M. "The influence of Subsurface Inputs on the Oceanic Transport of Meltwater from the Greenland Ice Sheet." Poster Presentation, Ocean Sciences Meeting, Glasgow, Scotland.
- 2025 Chinni V., Steffen J. M., Herbert L.C., **Oliver, H.**, Stammerjohn S. E., St-Laurent, P., Wellner. J., Yager P., Conway T., Fitzsimmons J., & Sherrell R. M. "Iron sources and biogeochemistry in the Amundsen Sea, West Antarctica: ice shelf processes and glacial meltwater." Poster Presentation, AGU Fall Meeting, New Orleans, LA.
- 2024 **Oliver, H.**, Turner, J.S., Castagna, A., Houskeeper, H., & Dierssen, H. "Rethinking Antarctic Polynyas: Minimizing ocean color remote sensing adjacency effects along icy coasts." Poster Presentation, Ocean Optics Meeting, Las Palmas de Gran Canaria, Spain.
- Oliver, H.**, Slater, D., Carroll, D., Wood, M., Morlighem, M., & Hopwood, M. J. "Biogeochemical impacts of subglacial discharge released from Greenland tidewater glaciers." Oral Presentation, Ocean Sciences Meeting, New Orleans, LA.
- Steffen, J., **Oliver, H.**, Herbert, L., Chinni, V., Wellner, J., Stammerjohn, S.E., Yager, P.L., Sherrell, R.M., & Fitzsimmons, J.N. "Iron isotope measurements of seawater in the Amundsen Sea reveal sources of iron in the coastal Southern Ocean." Ocean Sciences Meeting, New Orleans, LA.
- Chinni V., Herbert, L., Steffen, J., Jenness S.E., Bu, K., Fitzsimmons, J.N., Bundy, R.M., **Oliver, H.**, St-Laurent, P., Yager, P.L., & Sherrell, R.M. "Iron Sources in the Amundsen Sea: Insights from Soluble, Colloidal, Dissolved and Particulate Fractions." Ocean Sciences Meeting, New Orleans, LA.
- Herbert, L., St-Laurent, P., Steffen, J., **Oliver, H.**, Fitzsimmons, J.N., & Sherrell, R.M. "Variable benthic fluxes of iron to a coastal Antarctic ecosystem revealed by a coupled modeling-observational approach (Amundsen Sea, West Antarctica)." Ocean Sciences Meeting, New Orleans, LA.
- Zhang, W. G., Alatalo, P., Crockford, E.T., Hirzel, A. J., Meyer, M. G., **Oliver, H.**, Peacock, E., Petitpas, C. M., Sandwith, Z., Smith, W. O., Sosik, H. M., Stanley, R. H. R., Stevens, B. L. F., Turner, J. T., & McGillicuddy, D. J. "Cross-shelf exchange associated

- with a shelf-water streamer at the Mid-Atlantic Bight shelf edge." Ocean Sciences Meeting, New Orleans, LA.
- 2023 **Oliver, H.**, McGillicuddy, D. J., Krumhardt, K. M., Long, M. C., Bates, N. R., Bowler, B. C., Drapeau, D. T., & Balch, W. M. "Controls on coccolithophore growth in the Pacific sector of the Southern Ocean." Oral Presentation, ASLO 2023 Aquatic Sciences Meeting, Palma de Mallorca, Spain.
- 2022 **Oliver, H.**, Zhang, W. G., Archibald, K. M., Hirzel, A. J., Smith, W. O., Sosik, H. M., Stanley, R. H. R., & McGillicuddy, D. J. "Ekman restratification drives ephemeral surface chlorophyll enhancements at the New England shelf break." Oral presentation (presented by Dennis McGillicuddy), Ocean Sciences Meeting, Virtual.
- 2020 **Oliver, H.**, Zhang, W. G., Smith, W. O., Alatalo, P., Chappell, P. D., Hirzel, A., Packard, G., Poole, J., Selden, C. R., Sosik, H. M., Stanley, R. H. R., Zhu, Y., & McGillicuddy, D. J. "Western boundary current instability gives rise to extraordinary subsurface diatom blooms in the Middle Atlantic Bight slope sea." Poster presentation, Abstract #714713. American Geophysical Union, Annual Meeting, Virtual.
- Oliver, H.**, Castelao, R. M., Wang, C., Yager, P. L. "A sensitivity analysis to determine conditions necessary for meltwater- enhanced nutrient export from Greenland's glacial fjords." Oral presentation. Ocean Sciences Meeting, San Diego, CA.
- Yager, P.L., **Oliver, H.**, St-Laurent P., Sherrell, R.M., & SE Stammerjohn, S.E. "High-resolution ocean model illustrates how ice-ocean interactions impact the CO₂ uptake of an Antarctic coastal polynya." Ocean Sciences Meeting, San Diego, CA.
- 2018 **Oliver, H.**, St-Laurent, P., Sherrell, R. M., Yager, P. L. "Controls on summer phytoplankton blooms in a highly productive Antarctic coastal polynya." Oral presentation, Abstract #OS34B-06. American Geophysical Union, Annual Meeting, Washington D.C. **Outstanding Student Presentation Award winner, Ocean Sciences section.**
- Oliver, H.**, St-Laurent, P., Sherrell, R. M., Yager, P. L. "What controls the massive phytoplankton bloom in the Amundsen Sea Polynya?" Poster, Abstract #HE14B-2850. Ocean Sciences Meeting, Portland, OR.
- 2017 **Oliver, H.**, St-Laurent, P., Sherrell, R. M., Yager, P. L. "Modeling physical and biological controls on phytoplankton blooms in the Amundsen Sea Polynya." Poster. Goldschmidt Conference, Paris, France.
- 2016 **Oliver, H.**, Luo, H., Castelao, R. M., van Dijken, G., Mattingly, K., Rosen, J., Mote, T., Arrigo, K. R., Rennermalm, A., Tedesco, M., Yager, P. L. "Extreme surface melting of the Greenland Ice Sheet increases growth potential for light-limited phytoplankton in the Labrador Sea." Oral presentation. American Geophysical Union, Annual Meeting, San Francisco, CA.
- Oliver, H.**, Luo, H., Mattingly, K., Rosen, J., Yager, P. L. "Modeling the sensitivity of coastal ocean Primary Production to Extreme Melting of the Greenland Ice Sheet." Poster. Ocean Sciences Meeting, New Orleans, LA.
- 2015 Yager, P. L., **Oliver, H.**, Sherrell, R., Stammerjohn, S., St-Laurent, P., Hofmann, E., Mote, T., Tedesco, M., Rennermalm, A. K., Castelao, R. M. "Ice sheet meltwater impacts on biological productivity in high-latitude coastal zones - observations and models for the west Antarctic and southwest Greenland." Poster. AGU Fall Meeting, San Francisco, CA.

REVIEWER ACTIVITY

Refereed Journals: Nature Climate Change, Frontiers in Marine Science, Geophysical Research Letters, Biogeosciences, Journal of Plankton Research, Journal of Geophysical Research: Oceans, Nature Geoscience, Journal of Advances in Modeling Earth Systems (JAMES), Communications Earth and Environment, Journal of Geophysical Research: Biogeosciences, Ocean Science

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PROFESSIONAL SOCIETIES

2015 — present American Geophysical Union

2016 — present The Oceanography Society