

# Hilde Oliver

Assistant Scientist  
Department of Applied Ocean Physics and Engineering  
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Updated 2026-03-13

## EDUCATION

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- 2019            **Ph.D.**, Marine Sciences, University of Georgia
- 2014            **B.S., *magna cum laude***, Mathematics, University of South Carolina (emphasis in Applied Mathematics, minor in French)

## PROFESSIONAL EXPERIENCE

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- 2025 —            **Assistant Scientist II**, Department of Applied Ocean Physics and Engineering  
Coastal Ocean Fluid Dynamics Laboratory (COFDL)  
Woods Hole Oceanographic Institution
- 2021 — 2025        **Assistant Scientist I**, Department of Applied Ocean Physics and Engineering  
Coastal Ocean Fluid Dynamics Laboratory (COFDL)  
Woods Hole Oceanographic Institution
- 2019 — 2021        **Postdoctoral Scholar**, Department of Applied Ocean Physics and Engineering  
Woods Hole Oceanographic Institution
- 2014 — 2019        **Research Assistant**, Department of Marine Sciences  
University of Georgia

## RESEARCH INTERESTS

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

## HONORS AND AWARDS

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- 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
- 2013, 2014        USC Jeong S. Yang Award for Excellence in Undergraduate Mathematics
- 2013            Phi Beta Kappa

- [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., Schiøtt, 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., Wethey, 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*, 123, 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*

- [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. (In revision). 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 from decaying algal matter on the seafloor fuel an Antarctic ecosystem.
- [1] Silver, A., **Oliver, H.**, & Gawarkiewicz G. (Submitted). Low-Frequency Variability in Cross-Channel Velocities over the Northeast Channel; Over 30 Year Census of Scotian Shelf Crossovers.

OTHER PUBLICATIONS

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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.

INVITED SEMINARS

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| 2025 | UConn Department of Marine Sciences<br>"Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"             |
| 2025 | ODU Department of Ocean Earth Sciences<br>"Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"          |
| 2025 | British Antarctic Survey, Cambridge, UK<br>"Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"         |
| 2025 | National Oceanography Centre, Southampton, UK<br>"Rethinking Antarctic Polynya Productivity: The Impact of Ice-Adjacency Effects on NPP Estimates along Icy Coasts"   |
| 2025 | University of East Anglia, Norwich, UK<br>"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<br>"What drives ephemeral surface chlorophyll enhancements at the New England shelf break?" |
| 2024 | University of South Florida College of Marine Science<br>"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

#### PROFESSIONAL ACTIVITIES

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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-convenor "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

#### MENTORING AND SUPERVISION

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##### **Students**

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

##### **Postdocs**

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

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

##### **Technicians**

Finn Wimberly (2024—, WHOI Engineering Assistant II)

Phoebe Oehmig (2021, WHOI Engineering Assistant III)

#### OCEANOGRAPHIC FIELDWORK (7 CRUISES, 238 DAYS AT SEA)

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- 2025 RRS James Cook, 20 days, west Greenland shelf and Labrador Sea  
 $\delta^{18}\text{O}$  isotope sampling, ASD radiometry  
Project: 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/Dotson and Getz Ice Shelves  
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

#### WHOI INTERNAL SERVICE

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

#### PUBLISHED ABSTRACTS

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- 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.
- 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 CO<sub>2</sub> 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

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**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

**Funding Agencies:** National Science Foundation (NSF), The National Fund for Scientific and Technological Development (FONDECYT, Government of Chile)

#### PROFESSIONAL SOCIETIES

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- 2015 — present American Geophysical Union
- 2016 — present The Oceanography Society