

CURRICULUM VITAE: SETH LOMBARD DANIELSON

Seth Lombard Danielson, Ph.D.

Professor

Department of Oceanography

College of Fisheries and Ocean Sciences (CFOS)

University of Alaska Fairbanks (UAF)

113 O'Neill Building

905 N. Koyukuk Dr.,

Fairbanks, Alaska 99775-7220

Tel: (907) 474-7834

Email: sldanielson@alaska.edu

Professional Preparation

University of Alaska Fairbanks, Ph.D. Oceanography, 2012

University of Alaska Fairbanks; M.S. Oceanography, 1996

Lehigh University; B.S. Electrical Engineering, 1990, with honors

Memberships

American Geophysical Union

The Oceanography Society

Appointments

Associate Professor, CFOS-UAF, Fairbanks, AK, 2018-present

Research Associate Professor, IMS-UAF, Fairbanks, AK, 2016-2018

Research Assistant Professor, IMS-UAF, Fairbanks, AK, 2013-2016

Research Professional, IMS-UAF, Fairbanks, AK, 2002–2013

Research Analyst, IMS-UAF, Fairbanks, AK, 1997–2002

Technician, Institute of Marine Science, UAF, Fairbanks, AK, 1997

Driller, Polar Ice Coring Office, University of Nebraska, Lincoln, NB, 1996-1997

Research Assistant, IMS-UAF, Fairbanks, AK, 1994-1996

Driller, Polar Ice Coring Office, Institute of Marine Science (IMS) UAF, Fairbanks, AK, 1993-1994

Junior Engineer, Allen Organ Company, Macungie, PA, 1990-1992

PEER-REVIEWED PUBLICATIONS

In Preparation (9)

1. Danielson, S.L., Hennon, T.D., Iken, K.B., Sandy, S. Stafford, K., Horne, J.H., Mincks, S., Winter refugia for sub-Arctic species in the Pacific Arctic: a newly emerging seafloor habitat?
2. Danielson, S.L., A 50-year climatology of the coastal Gulf of Alaska.
3. Danielson, S.L., et al. Seawater density regulation of the annual cycle of Alaskan fjord hydrographic structure and biogeochemistry
4. Hennon, T. et al. Oceanographic conditions in Glacier Bay, Alaska based on 30 years of monitoring.
5. Klenz, T. et al. Internal waves support thriving ecosystem in a temperate fjord.
6. Reister, I., S.L. Danielson, T.D. Hennon, T. Klenz. Seasonally contrasting wind-driven submesoscale dynamics in the Northern Gulf of Alaska and connections to chlorophyll-a patchiness
7. Reister, I., S.L. Danielson, et al. A glider-based view of the Northern Gulf of Alaska spring bloom timing and productivity
8. Sandy, S., S.L. Danielson, A decade of environmental conditions and variability in the NE Chukchi Sea within a biological hotspot
9. Waite, A. A. Lane, E. Carmack, S. Danielson, I. Ellingsen, I. Fer, Y.D. Lenn, L. Oziel, Benjamin Rabe, Achim Randelhoff, Eric Raes, Andreas Rogge, J.E. Tremblay, S. Torres-Valdes, S.S. Weil, and W.J. von Appen. Physical-biogeochemical coupling in the Arctic Ocean: Refining new nitrogen fluxes. *Nature Reviews Earth & Environment*

In Review (1)

1. Ortega, E. et al., Surface macro- and micro-nutrients within Copper River plume region respond to along-shore winds

CURRICULUM VITAE: SETH LOMBARD DANIELSON

Published (91)

2025

1. Williams, W.J., Brown, K.A., Rotermund, L.M., Bluhm, B.A., Danielson, S.L., Dempsey, M., McLaughlin, F.A., Vagle, S. and Carmack, E.C., 2025. Processes in the Kitikmeot Sea estuary constraining marine life. *Elementa: Science of the Anthropocene*, 13(1).

2024

2. Husson, B., Bluhm, B.A., Cyr, F., Danielson, S.L., Eriksen, E., Fossheim, M., Geoffroy, M., Hopcroft, R.R., Ingvaldsen, R.B., Jørgensen, L.L. and Lovejoy, C., 2024. Borealization impacts shelf ecosystems across the Arctic. *Frontiers in Environmental Science*, 12, p.1481420.
3. Conte, L., Fiechter, J., Strom, S., Hopcroft, R.R., Danielson, S.L. and Aguilar-Islas, A., 2024. Modeling planktonic food web interannual variability of the northern Gulf of Alaska shelf. *Journal of Geophysical Research: Oceans*, 129(8), p.e2024JC021116.
4. Hauri, C., Irving, B., Dupont, S., Pagés, R., Hauser, D. D. W., and Danielson, S. L.: Insights into carbonate environmental conditions in the Chukchi Sea, *Biogeosciences*, 21, 1135–1159, <https://doi.org/10.5194/bg-21-1135-2024>, 2024.
5. Jakobsson, M., et al. The International Bathymetric Chart of the Arctic Ocean Version 5.0. *Scientific Data*, 11(1), p.1420.
6. Margevich, A., Timmermans, M.L. and Danielson, S., 2024. Pacific-Arctic connections: Assessing flow through Bering Strait in context with dynamic ocean topography and surface stress. *Journal of Geophysical Research: Oceans*, 129(8), p.e2024JC021132.
7. Polyakov, I.V., Ballinger, T.J., Overland, J.E., Vavrus, S.L., Danielson, S.L., Lader, R., Bhatt, U.S., Hendricks, A.S. and Mueter, F.J., 2024. Atmospheric Pressure Rivalry Between the Arctic and Northern Pacific: Implications for Alaskan Climate Variability. *International Journal of Climatology*, 44(15), pp.5339-5357.
8. Reister, I., Danielson, S. and Aguilar-Islas, A., 2024. Perspectives on Northern Gulf of Alaska salinity field structure, freshwater pathways, and controlling mechanisms. *Progress in Oceanography*, 229, p.103373.

2023

9. Baker, M.R., Farley, E.V., Danielson, S.L., Mordy, C., Stafford, K.M. and Dickson, D.M., 2023. Integrated research in the Arctic–ecosystem linkages and shifts in the northern Bering Sea and eastern and western Chukchi Sea. *Deep Sea Research Part II: Topical Studies in Oceanography*, p.105251.
10. Charrier, B.R., Danielson, S.L. and Mincks, S.L., 2023. Trait-based assessment of polychaete assemblages distinguishes macrofaunal community structure among four distinct benthic eco-regions on a shallow arctic shelf. *Deep Sea Research Part II: Topical Studies in Oceanography*, 208, p.105240.
11. Charrier, B.R., Ingels, J., Danielson, S.L. and Mincks, S.L., 2023. Infaunal community structure, diversity, and function in Pacific-Arctic shelf sediments: a comparison of meiofaunal-and macrofaunal-sized nematodes. *Marine Ecology Progress Series*, 720, pp.95-116.
12. Cushing, D.A., Kuletz, K.J., Sousa, L., Day, R.H., Danielson, S.L., Labunski, E.A. and Hopcroft, R.R., 2023. Differential response of seabird species to warm-and cold-water events in a heterogeneous cross-shelf environment in the Gulf of Alaska. *Marine Ecology Progress Series*.
13. Cypher, A.D., Statscewich, H., Campbell, R., Danielson, S.L., Eiler, J. and Bishop, M.A., 2023. Detection efficiency of an autonomous underwater glider carrying an integrated acoustic receiver for acoustically tagged Pacific herring. *ICES Journal of Marine Science*, 80(2), pp.329-341.
14. Gonzalez, S., Horne, J.K., Danielson, S.L., Lopez, G. and Segura, A.M., 2023. Temporal dynamics and environmental drivers of polar cod (*Boreogadus saida*) densities in the northeast Chukchi Sea. *Polar Biology*, 46(6), pp.573-588.

CURRICULUM VITAE: SETH LOMBARD DANIELSON

15. Pickart, R.S., Lin, P., Bahr, F., McRaven, L.T., Huang, J., Pacini, A., Arrigo, K.R., Ashjian, C.J., Berchok, C., Baumgartner, M.F. and Cho, K.H., Cooper, L.W., Danielson, S.L., Dasher, D., Fuiwara, A., Gann, J., Grebmeier, J.M., He, J. Hirawake, T., Itoh, M., Juranek, L., Kikuchi, T. Moore, G.W.K., Napp, J. Nelson, R.J., Nishino, S. Statscewich, H., Stabeno, P. Stafford, K.M., Ueno, H. Vagle, S. Weingartner, T., Williams., B., Zimmerman, S., 2023. The Pacific water flow branches in the eastern Chukchi Sea. *Progress in Oceanography*, 219, p.103169.
- 2022
16. Bluhm, B.A., Brown, K., Rotermund, L., Williams, W., Danielsén, S. and Carmack, E.C., 2022. New distribution records of kelp in the Kitikmeot Region, Northwest Passage, Canada, fill a pan-Arctic gap. *Polar Biology*, 45(4), pp.719-736.
 17. Danielson, S.L., Hennon, T.D., Monson, D.H., Suryan, R.M., Campbell, R.W., Baird, S.J., Holderied, K. and Weingartner, T.J., 2022. Temperature variations in the northern Gulf of Alaska across synoptic to century-long time scales. *Deep Sea Research Part II: Topical Studies in Oceanography*, p.105155.
 18. Danielson, S.L., Grebmeier, J., Iken, K., Berchok, C., Britt, L., Dunton, K., Eisner, L., Farley, E., Fujiwara, A., Hauser, D. and Itoh, M., 2022. Monitoring Alaskan Arctic Shelf Ecosystems Through Collaborative Observation Networks. *Oceanography*.
 19. Drinkwater, K.F., Harada, N., Nishino, S., Chierici, M., Danielson, S.L., Ingvaldsen, R.B., Kristiansen, T., Hunt Jr, G.L., Mueter, F. and Stiansen, J.E., 2021. Possible future scenarios for two major Arctic Gateways connecting Subarctic and Arctic marine systems: I. Climate and physical–chemical oceanography. *ICES Journal of Marine Science*, 78(9), pp.3046-3065.
 20. Gabriele, C.M., Amundson, C.L., Neilson, J.L., Straley, J.M., Baker, C.S. and Danielson, S.L., 2022. Sharp decline in humpback whale (*Megaptera novaeangliae*) survival and reproductive success in southeastern Alaska during and after the 2014–2016 Northeast Pacific marine heatwave. *Mammalian Biology*, pp.1-19.
 21. Gall, A.E., Prichard, A.K., Kuletz, K.J. and Danielson, S.L., 2022. Influence of water masses on the summer structure of the seabird community in the northeastern Chukchi Sea. *Plos one*, 17(4), p.e0266182.
 22. González, S., Horne, J.K., Danielson, S.L., Lieber, L. and López, G., 2022. Representative range of acoustic point source measurements in the Chukchi Sea. *Elem Sci Anth*, 10(1), p.00055.
 23. Hennon, T. D., Danielson, S. L., Woodgate, R. A., Irving, B., Stockwell, D. A., & Mordy, C. W. 2022. Mooring measurements of Anadyr current nitrate, phosphate, and silicate enable updated Bering Strait nutrient flux estimates. *Geophysical Research Letters*, 49, e2022GL098908. <https://doi.org/10.1029/2022GL098908>
 24. Lu, K., Danielson, S.L. and Weingartner, T., 2022. Impacts of short-term wind events on Chukchi hydrography and sea-ice retreat. *Deep Sea Research Part II: Topical Studies in Oceanography*, 199, p.105078.
 25. Sandy, S.J., Danielson, S.L. and Mahoney, A.R., 2022. Automating the Acoustic Detection and Characterization of Sea Ice and Surface Waves. *Journal of Marine Science and Engineering*, 10(11), p.1577.
 26. Zinkann, A.C., Wooller, M.J., Leigh, M.B., Danielson, S.L., Gibson, G. and Iken, K., 2022. Depth distribution of organic carbon sources in Arctic Chukchi Sea sediments. *Deep Sea Research Part II: Topical Studies in Oceanography*, 199, p.105076.
- 2021
27. Anderson, D.M., E. Fachon, R.S. Pickart, P. Lin, A.D. Fischer, M.L. Richlen, V. Uva, M. Brosnahan, L. McRaven, F. Bahr, K. Lefebvre, J.M. Grebmeier, S.L. Danielson, Y. Lyu, Y. Fukai, in press. Evidence for massive and recurrent toxic blooms of *Alexandrium catenella* in the Alaskan ArcticPNAS
 28. Bluhm, B.A., M.A. Janout, S.L. Danielson, I. Ellingsen, M. Gavrilov, J.M. Grebmeier, R.R. Hopcroft, K. Iken, R.B. Ingvaldsen, L.L. Jørgensen, K.N. Kosobokova, R. Kwok, I.V. Polyakov, P.E. Renaud and E.C. Carmack, in review. The pan-Arctic continental slope: sharp gradients of

physical processes affect pelagic and benthic ecosystems, *Front. Mar. Sci. Global Change and the Future Ocean*

29. Deary, A.L., Vestfals, C.D., Mueter, F.J., Logerwell, E.A., Goldstein, E.D., Stabeno, P.J., Danielson, S.L., Hopcroft, R.R., Duffy-Anderson, J.T., 2021. Seasonal abundance, distribution, and growth of the early life stages of polar cod (*Boreogadus saida*) and saffron cod (*Eleginus gracilis*) in the US Arctic, *Deep-Sea Research II*,
 30. Hauri, C., Pagès, R., McDonnell, A.M.P., M. F. Stuecker, S.L. Danielson, K. Hedstrom, B. Irving, C. Schultz and S. C. Doney. 2021. Modulation of ocean acidification by decadal climate variability in the Gulf of Alaska. *Commun Earth Environ* 2, 191 (2021). <https://doi.org/10.1038/s43247-021-00254-z>
 31. Gonzalez, S., Horne, J.K. and Danielson, S.L., 2021. Multi-scale temporal variability in biological-physical associations in the NE Chukchi Sea. *Polar Biology*, 44(4), pp.837-855.
 32. Krause, J.W., Lomas, M.W. and Danielson, S.L., 2021. Diatom growth, biogenic silica production, and grazing losses to microzooplankton during spring in the northern Bering and Chukchi Seas. *Deep Sea Research Part II: Topical Studies in Oceanography*, p.104950.
 33. Lalande C., Grebmeier J.M., McDonnell A.M., Hopcroft R.R., O'Daly S., Danielson S.L., 2021. Impact of a warm anomaly in the Pacific Arctic region derived from time-series export fluxes. *Plos one*. 2021 Aug 16;16(8):e0255837
 34. MacKinnon, J.A., Simmons, H.L., Hargrove, J., Thomson, J., Peacock, T., Alford, M.H., Barton, B.I., Boury, S., Brenner, S.D., Couto, N. and Danielson, S.L., 2021. A warm jet in a cold ocean. *Nature communications*, 12(1), pp.1-12.
 35. Mueter, F.J., K. Iken, L.W. Cooper, J.M. Grebmeier, K.J. Kuletz, R.R. Hopcroft, S.L. Danielson, R. E. Collins, and D.A. Cushing. 2021. Changes in diversity and species composition across multiple assemblages in the Eastern Chukchi Sea during two contrasting years are consistent with borealization. *Oceanography* 34, 2:38-51.
 36. O'Daly, S.H., Danielson, S.L., Hardy, S.M., Hopcroft, R.R., Lalande, C., Stockwell, D.A. and McDonnell, A.M., 2020. Extraordinary carbon fluxes on the shallow Pacific Arctic shelf during a remarkably warm and low sea ice period. *Frontiers in Marine Science*, 7, p.986
 37. Suryan, R.M., Arimitsu, M.L., Coletti, H.A., Hopcroft, R.R., Lindeberg, M.R., Barbeaux, S.J., Batten, S.D., Burt, W.J., Bishop, M.A., Bodkin, J.L. and Brenner, R., R.W. Campbell, D.A. Cushing, S.L. Danielson, and 32 other coauthors, 2021. Ecosystem response persists after a prolonged marine heatwave. *Scientific reports*, 11(1), pp.1-17.
 38. Tian, F., Pickart, R.S., Lin, P., Pacini, A., Moore, G.W.K., Stabeno, P., Weingartner, T., Itoh, M., Kikuchi, T., Dobbins, E., Bell, S., R.A. Woodgate, S.L. Danielson, Z. Wang, 2021. Mean and Seasonal Circulation of the Eastern Chukchi Sea From Moored Timeseries in 2013–2014. *Journal of Geophysical Research: Oceans*, 126(5), p.e2020JC016863.
 39. Vestfals, C.D., Mueter, F.J., Hedstrom, K.S., Laurel, B.J., Petrik, C.M., Duffy-Anderson, J.T. and Danielson, S.L., 2021. Modeling the dispersal of polar cod (*Boreogadus saida*) and saffron cod (*Eleginus gracilis*) early life stages in the Pacific Arctic using a biophysical transport model. *Progress in Oceanography*, 196, p.102571.
- 2020
40. Baker, M.R., Farley, E.V., Ladd, C., Danielson, S.L., Stafford, K.M., Huntington, H.P. and Dickson, D.M., 2020. Integrated ecosystem research in the Pacific Arctic—understanding ecosystem processes, timing and change. *Deep-Sea Res. II: Topical Studies in Oceanogr.* 104850
 41. Copeman, L., M. Spencer, R. Heintz, J. Vollenweider, A. Sremba, T. Helser, L. Logerwell, L. Sousa, S.L. Danielson, A. Pinchuk and B. Laurel, 2020. Ontogenetic patterns in lipid and fatty acid biomarkers of juvenile polar cod (*Boreogadus saida*) and saffron cod (*Eleginus gracilis*) from across the Alaska Arctic. *Polar Biology*
 42. Danielson, S.L., O. Ahkinga, C. Ashjian, E. Basyuk, L.W. Cooper, L. Eisner, E. Farley, K.B. Iken, J.M. Grebmeier, L. Juranek, G. Khen, S. Jayne, T. Kikuchi, C. Ladd, K. Lu, R. McCabe, G.W.K. Moore, S. Nishino, S.R. Okkonen, F. Ozenna, R.S. Pickart, I. Polyakov, P.J. Stabeno, K.

- Wood, W.J. Williams, T.J. Weingartner, 2020. Manifestation and consequences of warming and altered heat fluxes over the Bering and Chukchi Sea continental shelves. *Deep-Sea Res. II: Topical Studies in Oceanogr.*, 177, 144781, <https://doi.org/10.1016/j.dsr2.2020.104781>
 43. Danielson, S.L., Hill, D.F., Hedstrom, K.S., Beamer, J. and Curchitser, E., 2020. Demonstrating a High-Resolution Gulf of Alaska Ocean Circulation Model Forced Across the Coastal Interface by High-Resolution Terrestrial Hydrological Models. *Journal of Geophysical Research: Oceans*, 125(8), p.e2019JC015724.
 44. Danielson, S.L., T.D Hennon, K.S.Hedstrom, A. Pnyushkov, I.V. Polyakov, E. Carmack, K.Filchuk, M.A. Janout, M. Makhotin, W.J. Williams, L. Padman, 2020. Oceanic routing of wind-sourced energy along the Arctic continental shelves, *Front. Mar. Sci. - Global Change and the Future Ocean*, DOI: 10.3389/fmars.2020.00509
 45. Hauri, C., Schultz, C., Hedstrom, K., Danielson, S., Irving, B., Doney, S.C., Dussin, R., Curchitser, E.N., Hill, D.F. and Stock, C.A., 2020. A regional hindcast model simulating ecosystem dynamics, inorganic carbon chemistry, and ocean acidification in the Gulf of Alaska. *Biogeosciences*, 17(14), pp.3837-3857.
 46. Huntington, H.P., S.L. Danielson, F.K. Wiese, M. Baker, P. Boveng, J.J. Citta, A. De Robertis, D.M. Dickson, E. Farley, J.C. George, K. Iken, D.G. Kimmel, K. Kuletz, C. Ladd, R. Levine, L. Quakenbush, P. Staben, K.M Stafford, D. Stockwell and C. Wilson, 2020. Evidence suggests potential transformation of the Pacific Arctic ecosystem is underway. *Nature Climate Change*, 10(4), pp.342-348
 47. Jakobsson, M., L.A. Mayer, C. Bringensparr, C. F. Castro, R. Mohammad, P. Johnson, T. Ketter, D. Accettella, D. Amblas, L. An, J.E. Arndt, M. Canals, J.L. Casamor, N. Chauché, B. Coakley, S.L. Danielson, M. Demarte, M.L. Dickson, Boris Dorschel, J.A. Dowdeswell, S. Dreutter, AC. Fremand, D Gallant, J.K. Hall, L Hehemann, H. Hodnesdal, J. Hong, R. Ivaldi, E. Kane, I. Klauke, D.W. Krawczyk, Y. Kristoffersen², B.R. Kuipers, R. Millan, G. Masetti, M. Morlighem, R. Noormets, M. M. Prescott, M. Rebescio, E. Rignot, I. Semiletov, A.J. Tate, P. Travaglini, I. Velicogna, P. Weatherall, W. Weinrebe, J.K. Willis, M. Wood, Y. Zarayskaya, T. Zhang, M. Zimmermann, K.B. Zinglersen, 2020. The International Bathymetric Chart of the Arctic Ocean Version 4.0, *Nature Scientific Data*.
 48. Lalande, C., Grebmeier, J.M., Hopcroft, R.R. and Danielson, S.L., 2020. Annual cycle of export fluxes of biogenic matter near Hanna Shoal in the northeast Chukchi Sea. *Deep-Sea Res. II: Topical Studies in Oceanogr.*, p.104730.
 49. Lovvorn, J.R., Rocha, A.R., Danielson, S.L., Cooper, L.W., Grebmeier, J.M. and Hedstrom, K.S., 2020. Predicting sediment organic carbon and related food web types from a physical oceanographic model on a subarctic shelf. *Mar. Ecol. Prog. Ser.*, 633, pp.37-54.
 50. Lu, K., S.L. Danielson, K.S. Hedstrom, and T.J. Weingartner, 2020. Assessing the role of oceanic heat fluxes on ice ablation of the central Chukchi Sea Shelf. *Prog. in Oceanogr.*, <https://doi.org/10.1016/j.pocean.2020.102313>
 51. Polyakov, I.V., M.B. Alkire, B.A. Bluhm, K. Brown, E.C. Carmack, M. Chierici, S.L. Danielson, Ingrid Ellingsen, E.A. Ershova, K. Gårdfeldt, R.B. Ingvaldsen, A.V. Pnyushkov, D. Slagstad and P.F.J. Wassmann, 2020. Borealization of the Arctic Ocean in response to anomalous advection from sub-arctic seas. *Front. Mar. Sci. - Global Change and the Future Ocean*
 52. Thoman, R.L., U. Bhatt, P.A. Bieniek, B.R. Brettschneider, M. Brubaker, S.L. Danielson, Z. Labe, R. Lader, W.N. Meier, G. Sheffield, and J.E. Walsh, 2020. The record low Bering Sea ice extent in 2018: context, impacts and an assessment of the role of anthropogenic climate change, *Bull. Amer. Meteor. Soc.*, doi:10.1175/BAMS-D-19-0175.1
- 2019
53. Janzen, C.D., McCammon, M., Danielson, S.L., Weingartner, T., Statscewich, H., Page, E. and Heim, B., 2019. Innovative Real-Time Observing Capabilities for Remote Coastal Regions. *Front. Mar. Sci.*, 6, p.176.
- 2018

CURRICULUM VITAE: SETH LOMBARD DANIELSON

54. Hauri, C., S.L. Danielson, A.M.P. McDonnell, R.R.H. Hopcroft, P. Winsor, P. Shipton, C. Lalande, K.M. Stafford, J.K. Horne, L.W. Cooper, J.M. Grebmeier, A. Mahoney, K. Maisch, M. McCammon, H. Statscewich, A. Sybrandy, and T. Weingartner, 2018. From sea ice to seals: A moored marine ecosystem observatory in the Arctic, *Ocean Science*, 14, 1423-1433, <https://doi.org/10.5194/os-14-1423-2018>
 55. Iken, K., F. Mueter, J.M. Grebmeier, L.W. Cooper, S.L. Danielson, B.A. Bluhm, 2018. Developing an observational design for epibenthos and fish assemblages in the Chukchi Sea, *Deep-Sea Res. II: Topical Studies in Oceanogr.*, <https://doi.org/10.1016/j.dsr2.2018.11.005>
 56. Batten, S.D., Raitos, D.E., S.L. Danielson, Hopcroft, R., Coyle, K., McQuatters-Gollop, A., 2018. Interannual variability in lower trophic levels on the Alaskan Shelf. *Deep-Sea Res. II: Topical Studies in Oceanogr.* <http://dx.doi.org/10.1016/j.dsr2.2017.04.023>.
 57. Logerwell, E., K. Rand, S.L. Danielson, S., and L. Sousa, 2018. Environmental drivers of benthic fish distribution in and around Barrow Canyon in the northeastern Chukchi Sea and western Beaufort Sea. *Deep-Sea Res. II: Topical Studies in Oceanogr.* 152, 170-181, <https://doi.org/10.1016/j.dsr2.2017.04.012>
 58. Rand K., E. Logerwell, B. Bluhm, H. Chenelot, S. Danielson, K. Iken, L. Sousa, 2018. Using biological traits and environmental variables to characterize two Arctic epibenthic invertebrate communities in and adjacent to Barrow Canyon. *Deep-Sea Res. II: Topical Studies in Oceanogr.*
 59. Walsh, J. E., R.L. Thoman, U.S. Bhatt, P.A. Bieniek, B. Brettschneider, M. Brubaker, S. Danielson, R. Lader, F. Fetterer, K. Holderied, K. Iken, A. Mahoney, M. McCammon, and J. Partain, 2018. The high latitude marine heat wave of 2016 and its impacts on Alaska [in "Explaining Extreme Events of 2016 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.*, 99 (1), S39–S43, doi:10.1175/BAMS-D-17-0105.1.
- 2017
60. Danielson, S.L., Eisner, L., Ladd, C., Mordy, C., Sousa, L. and Weingartner, T.J., 2017. A comparison between late summer 2012 and 2013 water masses, macronutrients, and phytoplankton standing crops in the northern Bering and Chukchi Seas. *Deep Sea Res. II: Topical Studies in Oceanogr.*, 135, pp.7-26.
 61. Marsh, J.M., Mueter, F.J., Iken, K. and Danielson, S., 2017. Ontogenetic, spatial and temporal variation in trophic level and diet of Chukchi Sea fishes. *Deep-Sea Res. II: Topical Studies in Oceanogr.*, 135, pp.78-94.
 62. Sigler, M.F., F.J. Mueter, B.A. Bluhm, M.S. Busby, E.D. Cokelet, S.L. Danielson, A. De Robertis, L. B. Eisner, E.V. Farley, K. Iken, K.J. Kuletz, R.R. Lauth, E.A. Logerwell and A.I. Pinchuk, 2017. Summer zoogeography of the northern Bering and Chukchi seas, *Deep Sea Res. II: Topical Studies in Oceanogr.*
 63. Weingartner, T. J., S.L. Danielson, R. Potter, C. Irvine, J. Trefrey and L. Sousa, 2017. Circulation and water properties in the landfast ice zone of the Alaskan Beaufort sea. *Cont. Shelf Res.* 148, 185-198
- 2016
64. Hunt, G. L., K. F. Drinkwater, K. Arrigo, J. Berge, K. L. Daly, S.L. Danielson, M. Daase, H. Hop, E. Isla, N. Karnovsky, K. Laidrea, E. J. Murphy, F. Mueter, P. E. Renaud, W. O. Smith, Jr., P. Trathan, and D. Wolf-Gladrow, 2016. Advection in polar and sub-polar environments: Impacts on high latitude marine ecosystems. *Prog. Oceanogr.*, 149, 40 81, <https://doi.org/10.1016/j.pocean.2016.10.004>
 65. Stabeno, P.J., S.L. Danielson, D. Kachel, N. B. Kachel, and C. W. Mordy, 2016. Currents and transport on the eastern Bering Sea shelf. resubmitted to *Deep-Sea Res. II: Topical Studies in Oceanogr.*
 66. Stabeno PJ, Bell S, Cheng W, Danielson S.L., Kachel NB, Mordy CW., 2016. Long-term observations of Alaska Coastal Current in the northern Gulf of Alaska. *Deep Sea Res. II: Topical Studies in Oceanogr.* <http://dx.doi.org/10.1016/j.dsr2.2015.12.016>

CURRICULUM VITAE: SETH LOMBARD DANIELSON

67. Whitehouse, G.A., T.W. Buckley and S.L. Danielson, 2016. Diet compositions and trophic guild structure of the eastern Chukchi Sea demersal fish community, *Deep Sea Res. II: Topical Studies in Oceanogr.*
- 2015
68. Danielson, S.L., E. L. Dobbins, M. Jakobsson, M. A. Johnson, T. J. Weingartner, W. J. Williams, and Y. Zarayskaya, 2015. Sounding the northern seas, *Eos*, 96, doi:10.1029/2015EO040975.
 69. Grebmeier, J. M., B. A. Bluhm, L. W. Cooper, S.L. Danielson, K. R. Arrigo, A. L. Blanchard, J. T. Clarke, R. H. Day, K. E. Frey, R. R. Gradinger, M. Kedra, B. Konar, K. J. Kuletz, S. H. Lee, J. R. Lovvorn, B. L. Norcross, S. R. Okkonen., 2015. Ecosystem Characteristics and Processes Facilitating Persistent Macrobenthic Biomass Hotspots and Associated Benthivory in the Pacific Arctic, *Prog. Oceanogr.*, V136, pp. 92-114, doi:10.1016/j.pocean.2015.05.006
 70. Lu, K., T. J. Weingartner, S.L. Danielson, P. Winsor, E. Dobbins, K. Martini, and H. Statscewich, 2015. Lateral mixing across ice meltwater fronts of the Chukchi Sea shelf, *Geophys. Res. Lett.*, 42, 6754–6761, doi:10.1002/2015GL064967.
 71. Wood, K. R., N. A. Bond, S.L. Danielson, J. E. Overland, S. A. Salo, P. Stabeno, J. Whitefield, 2015. A decade of change in the Pacific Arctic region, *Prog. Oceanogr.*, V136, pp 12-31., doi:10.1016/j.pocean.2015.05.005
- 2014
72. Cross, J.N., J. T. Mathis, K. E. Frey, C. E. Cosca, S.L. Danielson, N. R. Bates, R. A. Feely, T. Takahashi and W. Evans, 2014. Annual sea-air CO₂ fluxes in the Bering Sea: Insights from new autumn and winter observations of a seasonally ice-covered continental shelf, *J. Geophys. Res.*, doi:10.1002/2013JC009579
 73. Danielson, S.L., T. W. Weingartner, K. Hedstrom, K. Aagaard, R. Woodgate, E. Curchitser, and P. Stabeno, 2014. Coupled wind-forced controls of the Bering–Chukchi shelf circulation and the Bering Strait through-flow: Ekman transport, continental shelf waves, and variations of the Pacific–Arctic sea surface height gradient. *Prog. Oceanogr.* <http://dx.doi.org/10.1016/j.pocean.2014.04.006>
- 2013
74. Pickart, R.S., L.M. Schulze, G.W.K. Moore, M.A. Charette, K. R. Arrigo, G. van Dijken, and S.L. Danielson, 2013. Long-term trends of upwelling and impacts on primary productivity in the Alaskan Beaufort Sea, *Deep Sea Res. Part I: Oceanographic Research Papers*, Volume 79, September 2013, <http://dx.doi.org/10.1016/j.dsr.2013.05.003>.
 75. Weingartner, T. E. Dobbins, S. Danielson, P. Winsor, R. Potter, H. Statscewich, 2013. Hydrographic variability over the northeastern Chukchi Sea shelf in summer-fall 2008–2010, *Cont. Shelf Res.* ISSN 0278-4343, <http://dx.doi.org/10.1016/j.csr.2013.03.012>
- 2012
76. Danielson, S., T. Weingartner, K. Aagaard, J. Zhang, and R. Woodgate, 2012. Circulation on the central Bering Sea shelf, July 2008 to July 2010, *J. Geophys. Res.*, 117, C10003, doi:10.1029/2012JC008303.
 77. Danielson, S., K. Hedstrom, K. Aagaard, T. Weingartner, and E. Curchitser, 2012. Wind-induced reorganization of the Bering shelf circulation, *Geophys. Res. Lett.*, 39, L08601, doi:10.1029/2012GL051231.
- 2011
78. Danielson, S.L., E. N. Curchitser, K. S. Hedstrom, T. J. Weingartner, and P. J. Stabeno, 2011. On ocean and sea ice modes of variability in the Bering Sea, *J. Geophys. Res.*, doi:10.1029/2011JC007389
 79. Danielson, S., L. Eisner, T. Weingartner, and K. Aagaard, 2011. Thermal and haline variability over the central Bering Sea shelf: Seasonal and inter-annual perspectives, *Cont. Shelf Res.*, 31, 539–554, doi:10.1016/j.csr.2010.12.010.
 80. Sigler, M.F., M. Renner, S.L. Danielson, L.B. Eisner, R.R. Lauth, K.J. Kuletz, E.A. Logerwell,

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- and G.L. Hunt Jr., 2011. Fluxes, fins, and feathers: Relationships among the Bering, Chukchi, and Beaufort Seas in a time of climate change. *Oceanography* 24(3): 250–265, <http://dx.doi.org/10.5670/oceanog.2011.77>.
81. Statscewich, H., T. Weingartner, S. Danielson, B. Grunau, G. Egan, and J. Timm, 2011. A High-Latitude Modular Autonomous Power, Control, and Communication System for Application to High-Frequency Surface Current Mapping Radars, *Mar. Tech. Soc. J.*, 45:3, pp 59-68
- 2010
82. Janout, M.A., T.J. Weingartner, T. C. Royer, S.L. Danielson, 2010. On the nature of winter cooling and the recent temperature shift on the northern Gulf of Alaska shelf, *J. Geophys. Res.*, 2009JC005774R, DOI: 10.1029/2009JC005774.
- 2009
83. Wu, J., A. Aguilar-Islas, R. Rember, T. Weingartner, S. Danielson, and T. Whitledge, 2009. Size-fractionated iron distribution on the northern Gulf of Alaska, *Geophys. Res. Lett.*, 36, L11606, doi:10.1029/2009GL038304.
- 2008
84. Weingartner, T. J., L. Eisner, G. L. Eckert, S.L. Danielson, 2008. Southeast Alaska: oceanographic habitats and linkages (p 387-400), *J. of Biogeography*, DOI: 10.1111/j.1365-2699.2008.01994.x.
- 2006
85. Aagaard, K., T. J. Weingartner, S.L. Danielson, R. A. Woodgate, G. C. Johnson, and T. E. Whitledge, 2006. Some controls on flow and salinity in Bering Strait, *Geophys. Res. Lett.*, 33, L19602, doi:10.1029/2006GL026612.
86. Danielson, S., K. Aagaard, T. Weingartner, S. Martin, P. Winsor, G. Gawarkiewicz, and D. Quadfasel, 2006. The St. Lawrence polynya and the Bering shelf circulation: New observations and a model comparison, *J. Geophys. Res.*, 111, C09023, doi:10.1029/2005JC003268.
- 2005
87. Danielson, S.L., and Z. Kowalik, 2005. Tidal currents in the St. Lawrence Island region, *J. Geophys. Res.*, 110, No. C10, C10004, 10.1029/2004JC002463.
88. Weingartner T. J., K. Aagaard, R. A. Woodgate, S.L. Danielson, Y. Sasaki, and D. Cavalieri., 2005. Circulation on the north central Chukchi Sea shelf, *Deep-Sea Res. II*, 52 (24-26): 3150-3174.
89. Weingartner, T. J., S.L. Danielson, T.C. Royer, 2005. Fresh Water Variability in the Gulf of Alaska: Seasonal, Interannual and Decadal Variability, *Deep-Sea Res. II*, 52 (1-2): 169-191.
- 2003
90. Okkonen, S.R., T.J. Weingartner, S.L. Danielson, D.L. Musgrave and G.M. Schmidt, 2003. Satellite and Hydrographic Observations of Eddy-Induced Shelf-Slope Exchange in the Northwestern Gulf of Alaska, *J. Geophys. Res.*, 108 (C2): Art. No. 3033
- 1999
91. Weingartner, T.J., S.L. Danielson, Y. Sasaki, V. Pavlov and M. Kulakov, 1999. The Siberian Coastal Current: A wind- and buoyancy-forced Arctic coastal current, *J. Geophys. Res.*; V104; No. C12; 29,697-29,713.

REPORTS, BOOK CHAPTERS, AND OTHER PUBLICATIONS (22)

2023

1. Danielson, S.L., K.B. Iken, 2023. Arctic Marine Biodiversity and Ecosystem Structure Data Analysis and Synthesis. Coastal Marine Institute Final Report. University Alaska Fairbanks, Fairbanks AK, 43 pp.

CURRICULUM VITAE: SETH LOMBARD DANIELSON

2. Danielson, S.L., 2023. Glacier Bay oceanographic monitoring program analysis of observations, 1993–2016. Natural Resource Technical Report NPS/SEAN/NRTR—2023. National Park Service, Fort Collins, Colorado.
- 2022
3. Danielson, S.L., R.R. Hopcroft, A.M.P. McDonnell, S.L. Mincks, B.L. Norcross, D.A. Stockwell, B.R. Charrier, R.E. Collins, L. Copeman, A. Deary, L. Eisner, C.E. Forster, T.D. Hennon, C. Lalande, R.M. Lekanoff, M.W. Lomas, J.M. Nielsen, S.H. O'Daly, A. Poje, and A.C. Zinkann, 2022. Arctic Integrated Ecosystem Research Program Final Report: Arctic Shelf Growth, Advection, Respiration and Deposition Rate Experiments Project, North Pacific Research Board, Anchorage, AK, 592 pp.
 4. Potter, R.A. and S.L. Danielson, 2022. An Analysis of Surface Currents in the Western Beaufort and Northeastern Chukchi Seas. Coastal Marine Institute Draft Final Report. University Alaska Fairbanks, Fairbanks AK, 88 pp.
- 2021
5. Weingartner, T.J., Okkonen, S.R. and Danielson, S.L., 2021. Physical oceanography. In *The Bowhead Whale* (pp. 383-402). J.C. George and J.G.M Thewissen, eds. Academic Press.
- 2020
6. Danielson, S.L., Hennon, T., Monson, D., Suryan, R., Campbell, R., Baird, S., Holderied, K., and Weingartner, T., 2020. Chapter 1: A study of marine temperature variations in the northern Gulf of Alaska across years of marine heatwaves and cold spells. In M.R. Suryan, M.R. Lindeberg and D.R. Aderhold, eds. *The Pacific Marine Heatwave: Monitoring During a Major Perturbation*, Tech. rep., Exxon Valdez Oil Spill Trustee Council, Anchorage, AK.
 7. Suryan, R.M., M. Arimitsu, H. Coletti, R.R. Hopcroft, M.R. Lindeberg, S. Batten, M.A. Bishop, R. Brenner, R. Campbell, D. Cushing, S. Danielson, D. Esler, T. Gelatt, S. Hatch, S. Haught, K. Holderied, K. Iken, D. Irons, D. Kimmel, B. Konar, K. Kuletz, B. Laurel, J.M. Maniscalco, C. Matkin, C. McKinstry, D. Monson, J. Moran, D. Olsen, S. Pegau, J. Piatt, L. Rogers, A. Schaefer, J. Straley, K. Seeney, M. Szymkowiak, B. Weitzman, J. Bodkin, and S. Zador. 2020. Chapter 4 Ecosystem response to a prolonged marine heatwave in the Gulf of Alaska. In M.R. Suryan, M.R. Lindeberg, and D.R. Aderhold, eds. *The Pacific Marine Heatwave: Monitoring During a Major Perturbation in the Gulf of Alaska*. Gulf Watch Alaska Long-Term Monitoring Program Draft Synthesis Report (Exxon Valdez Oil Spill Trustee Council Program 19120114). Exxon Valdez Oil Spill Trustee Council, Anchorage, Alaska.
- 2018
8. Curchitser, E.N., K.S. Hedstrom, S.L. Danielson and J. Kasper, 2018. Beaufort Sea Circulation Model Integrations. Final Report. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Environmental Studies Program, Herndon, VA. OCS Study BOEM 2013-202, 82pp.
 9. Vollenweider J. J.; Heintz R. A.; Boswell K. M.; Norcross B.L.; Li C.; Barton M.B.; Sousa L.; Pinchuk A. I.; Danielson S.; George C. (2018) Ecology of Forage Fishes in the Arctic Nearshore; *North Slope Borough Shell baseline Studies Program Final Report*; p. 478
- 2017
10. Danielson, S.L., L. Cooper, J. Grebmeier, C. Hauri, K. Iken, R.R. Hopcroft, J. Horne, C. Lalande, A.M.P. McDonnell, K. Stafford, P. Winsor, 2017. Collaborative approaches to multi-disciplinary monitoring of the Chukchi shelf marine ecosystem: Networks of networks for maintaining long-term Arctic observations. IEEE OCEANS-Anchorage 2017, 1-7
 11. Kontoes C., R. Flagg, G. Gawarkiewicz, F. Bahr, P. Winsor, S.L. Danielson, 2017. Wi-Fi enabled CTDs in citizen science. IEEE Oceans-Anchorage 2017
- 2016
12. Danielson, S.L., K. S. Hedstrom and E. Curchitser, 2016. Cook Inlet Model Calculations, Final Report to Bureau of Ocean Energy Management, M14AC00014, University of Alaska Fairbanks, Fairbanks, AK, 149 pp.

CURRICULUM VITAE: SETH LOMBARD DANIELSON

2013

13. Curchitser, E.N., K.S. Hedstrom, S.L. Danielson and T.J. Weingartner, 2013. Adaptation of an Arctic Circulation Model. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Environmental Studies Program, Herndon, VA. OCS Study BOEM 2013-202, 82 pp.
14. Weingartner, T.J., S.L. Danielson, L. Dobbins, and R. Potter, 2013. Physical Oceanographic Measurements in the northeastern Chukchi Sea: 2012. Chukchi Sea Environmental Studies Program Annual Report. University of Alaska. 64 pp.

2012

15. Weingartner, T.J., S.L. Danielson, L. Dobbins, and R. Potter, 2012. Physical Oceanographic Measurements in the northeastern Chukchi Sea: 2011. Chukchi Sea Environmental Studies Program Annual Report. University of Alaska. 38 pp.
16. Danielson, S.L., 2012. Glacier Bay oceanographic monitoring program analysis of observations, 1993–2009. Natural Resource Technical Report NPS/SEAN/NRTR—2012/527. National Park Service, Fort Collins, Colorado.

2011

17. Weingartner, T.J., S.L. Danielson, L. Dobbins, and R. Potter, 2011. Physical Oceanographic Measurements in the Klondike and Burger survey areas of the Chukchi Sea: 2008-2010. Chukchi Sea Environmental Studies Program Annual Report. University of Alaska. 89 pp.

2010

18. Danielson, S., W. Johnson, L. Sharman, G. Eckert, and B. Moynahan, 2010. Glacier Bay National Park and Preserve oceanographic monitoring protocol: Version OC–2010.1. Natural Resource Report NPS/SEAN/NRR—2010/265. National Park Service, Fort Collins, Colorado.
19. Weingartner, T.J. and S.L. Danielson, 2010. Physical Oceanographic Measurements in the Klondike and Burger survey areas of the Chukchi Sea: 2008 and 2009. Chukchi Sea Environmental Studies Program Annual Report. University of Alaska. 50 pp.
20. Curchitster, E.C. K. S. Hedstrom, S.L. Danielson, and T.J. Weingartner, 2010. Modeling of Circulation in the North Aleutian Basin, final report prepared for BOEM contract M07PC13368, OCS Study BOEMRE 2010-028

2009

21. Weingartner, T. J., S.L. Danielson, J. L. Kasper and S. R. Okkonen, 2009. Circulation and Water Property Variations in the Nearshore Alaska Beaufort Sea, prepared for MMS, Contract M03PC00015, 155 pp.

2007

22. Danielson, S.L., and T. J. Weingartner, 2007. Estimates of Oil Spill Dispersion Extent in the Nearshore Alaskan Beaufort Sea Based On In-Situ Oceanographic Measurements, prepared for ADEC, 154 pp.

ACADEMIC EXPERIENCE

Theses

- Danielson, S.L., 2012. Variability in the Circulation, Temperature, and Salinity Fields of the Eastern Bering Sea Shelf in Response to Atmospheric Forcing. Doctoral dissertation. University of Alaska Fairbanks, Fairbanks, AK, 204 pp.
- Danielson, S.L., 1996. The Chukchi Sea tidal currents: model and observations. Master's thesis. University of Alaska Fairbanks, Fairbanks, AK, 50 pp.

Ph.D. Advisory Committee

- Dr. Thomas J. Weingartner (chair)
- Dr. Knut Aagaard
- Dr. Kenneth O. Coyle
- Dr. Katherine S. Hedstrom

CURRICULUM VITAE: SETH LOMBARD DANIELSON

Dr. Zygmunt Kowalik

M.S. Advisory Committee

Dr. Thomas J. Weingartner (chair)

Dr. Mark A. Johnson

Dr. Andrey Proshutinsky

Dr. Bruce Finney

Teaching Experience

OCN F692, Spring 2024: Physical Oceanography Seminar: Time Series Analysis

OCN F425/625, Fall 2023: Subarctic Oceanography Field Course

OCN F620, Fall 2023: Physical Oceanography

MSL F459, Spring 2023: Computer Programming for Scientific Applications

MSL F620, Fall 2021: Physical Oceanography

MSL F697, Fall 2021: Independent Study: Geophysical Fluid Dynamics

MSL F692, Fall 2021: Physical Oceanography Seminar: Fjord Structure and Dynamics

MSL F459, Spring 2021: Computer Programming for Scientific Applications

MSL F692, Fall 2020: Physical Oceanography Seminar: Freshwater in the Marine Environment

MSL F620, Fall 2019: Physical Oceanography

MSL F494, Spring 2019: Computer Programming for Scientific Applications

MSL F494, Spring 2017: Computer Programming for Scientific Applications

MSL F494, Spring 2015: Computer Programming for Scientific Applications

MSL F697, Spring 2014: Independent Study: Chukchi Sea Ocean and Ice Dynamics and Kinematics

Graduate Student Committees (active)

Andrew Einhorn, M.S., Sea Ice Geophysics

Brendan Higgins, M.S. Marine Biology

Addie Norgaard, M.S. Oceanography (Co-Chair)

Annika Margevich, PhD. Oceanography, Yale University

Emily Ortega, PhD. Oceanography

Isaac Reister, PhD. Oceanography (Chair)

Savannah Sandy, PhD. Oceanography (Chair)

Emily Stidham, M.S. Oceanography

Nichole Webster, PhD. Oceanography (Chair)

Graduate Student Committees (graduation year)

Jake Cohen, M.S. Oceanography, 2023

Thilo Klenz, PhD Oceanography, 2023

Delaney Coleman, M.S. Oceanography, 2022

Brittany Jones, PhD. Marine Biology, 2022

Savannah Sandy, M.S. Oceanography, 2022 (Chair)

Silvana Gonzalez, PhD., Fisheries, University of Washington, 2021

Annie Kandel, M.S. Oceanography, 2021

Heidi Mendoza-Islas, M.S. Oceanography, 2021

Alexandra Poje, M.S. Oceanography, 2021

Rachel Lekanoff, M.S. Oceanography, 2020

Yang Yang, PhD, Atmospheric Science, 2020

Ann Zinkann, PhD, Marine Biology, 2020

KoFan Lu, Ph.D. Oceanography, 2019 (Co-Chair)

Jennifer Marsh, Ph.D. Fisheries, 2019

Faith Stemmler, M.M.A. Oceanography, 2018

CURRICULUM VITAE: SETH LOMBARD DANIELSON

Alyssa Lind, M.S. Marine Biology, 2016
Stacey Reisdorph, M.S. Oceanography, 2015
Greg Deemer, M.S. Sea Ice Geophysics, 2014
Carlos Serratos, M.S. Marine Biology, 2015

Undergraduate mentorship

Cara Roberts, CFOS Fisheries intern, Fall 2023
Kaleigh J. Ballantine, Oregon State University Undergraduate Honors Thesis, 2024
Kaleigh J. Ballantine, NGA LTER REU intern, Summer 2023
Brandon Savelle, NGA LTER REU intern, Summer 2021
Ayanda Brydie, NGA LTER REU intern, Summer 2019

Post-doctoral scholar mentorship

Dr. Thilo Klenz, 2023-present
Dr. Tyler Hennon, 2019-2022
Dr. Hisatomo Waga, 2019-2021

Faculty mentorship

Dr. Kay McMonigal, 2023-present
Dr. Steven Dystra, 2023-present
Dr. Will Burt, 2020-2021

Awards, Recognitions and Honors

2023 Arctic Service Medal (USCG)
2021 Alaska Ocean Leadership Award for Marine Research by Alaska SeaLife Center
2021 Journal of Atmospheric and Oceanic Technology and Journal of Physical Oceanography certificate of appreciation for serving as journal reviewer in 2020
2021 Letter of Recognition for service to UAF Faculty Senate
2020 CFOS Deans Recognition Award: Outstanding Researcher
2019 Alaska Innovators Hall of Fame inductee by State of Alaska Committee for Research
2017 Mentor Award for dedication to the "Scientists in the Classroom" mentorship program
2016 American Geophysical Union Editor's Citation for Excellence in Refereeing
2016 Deep-Sea Research Certificate of Outstanding Contribution in Reviewing
2015 Mentor Award for dedication to the "Scientists in the Classroom" mentorship program
2014 Mentor Award for dedication to the "Scientists in the Classroom" mentorship program
2013 University of Alaska Top Scholar Award
1997 Antarctic Service Medal (NSF)
1990 Instrumentation Society of America student award for design of Electronic Flow Meter

RESEARCH EXPERIENCE

Field Expeditions

- 1995-2023, 51 research cruises with 572 days at sea.
- Spring 1994, NSF/UAF Polar Ice Coring Office (PICO), Greenland Summit Camp, ~20 days
- Oct 1993 to Feb 1994, NSF/UAF Polar Ice Coring Office, South Pole Station, ~100 days
- Oct 1996 to Feb 1997, NSF/UAF Polar Ice Coring Office, South Pole Station, ~100 days

SYNERGISTIC ACTIVITIES

UAF and CFOS Service

2023-2024: CFOS Oceanography Tenure Track Faculty Search Committee, Chair

CURRICULUM VITAE: SETH LOMBARD DANIELSON

2022-2023: Continued contributions to the UAF Faculty Senate Research Advisory Committee
2022-2023: CFOS Oceanography Tenure Track Faculty Search Committee, Member
2021-2023: CFOS Justice, Equity, Diversity and Inclusion (JEDI) Committee, Member
2021: Contributions to NSF Mid-scale Infrastructure proposal for Seward Marine Center facility expansion and upgrade.
2021: UAF Search Committee for Vice Chancellor for Research, Member
2019-2021: UAF Faculty Senate
2019-2021: Faculty Senate Research Advisory Committee (AY20/21 AY chair)
2019: UAF VCR Research Outreach Event for Alaska Legislators
2017-2020: Support of UAF-NOAA Cooperative Institute planning
2017: CFOS Dean's Committee on drafting a UAF Science Technology Center white paper
2016-2019: Design and procurement of UAF SMC coastal research vessel *R/V Nanuq*
2016: UAF VCR Research Outreach event for Alaska Legislators
2014-2016: UA Center for Salmon and Society Planning Team
2015: UAF VCR Research Outreach event for Board of Regents
2015: NSF Director's tour of R/V Sikuliaq
2014: UAF hosting of Secretary of the Navy Mabus
2014: GAKI Endowment
2014: SFOS Web Committee
2012: Marinette, WI Sikuliaq Science Workshop
2007: SFOS Search Committee for Marine Superintendent at the Seward Marine Center
2004: UAF Search Committee for SFOS Dean, Member
2003: IARC Search Committee for Marine Technician, Member

Professional Service

2023-present: Scientific Conference Session: *Oceanography of Alaskan Waters – From Ocean Currents to Whales*. AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, February 2024, Co-Chair
2023-present: Member, Science Definitions Team for the NASA Arctic Colors research program
2023: Contributions to NOAA's spring Preview of Ecological and Economic Conditions (PEEC) workshop
2022-present: Committee for convening Optimizing Ocean Observing Networks for Detecting the Coastal Climate Signal workshop. CLIVAR workshop to be held in Boulder, Colorado, Spring 2024
2022: Contributions to NOAA's Ecosystem Status Report for the Gulf of Alaska and the Bering Sea management areas.
2022: Contributions to NOAA's spring Preview of Ecological and Economic Conditions (PEEC) workshop
2022: Scientific Conference Session: *Ecosystem structure and processes in a changing Arctic*, Ocean Sciences Meeting, Honolulu, HI, February 2022, Session Chair
2021-present: Member, University-National Oceanographic Laboratory System (UNOLS) Arctic Icebreaker Coordinating Committee (AICC)
2021-2022: Guest editor for Deep Sea Research II: Topical studies in oceanography - Understanding ecosystem processes, timing, and change in the Pacific Arctic II
2020-ongoing: National Marine Fisheries Service (NMFS) Investigative Team for *Ice Seal Unusual Mortality Event* (UME)
2020: Scientific Conference Session: *Ecosystem structure and processes in a changing Arctic*, Ocean Sciences Meeting, San Diego, CA, February 2020. Session Chair
2020: Organizer and panelist, Town Hall Meeting: *Scientific Response to an Ever Faster Changing Arctic: Making the Most of Our Collective Research Efforts*
2019-2021: Guest editor for Deep Sea Research II: Topical studies in oceanography - Understanding ecosystem processes, timing, and change in the Pacific Arctic I
2018-present: US component of the Synoptic Arctic Survey Science Steering Committee

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- 2018-present: Alaska SeaLife Center Science Advisory Committee
- 2018: Scientific Conference Session: *Linkages Between Environmental Drivers and Structure of Arctic Ecosystems*, Ocean Sciences Meeting, Portland, OR, February 2018. Session Chair.
- 2016-present: Science Steering Committee, Arctic Integrated Ecosystem Research Program
- 2015: Lead author, workshop results pamphlet *Sustaining the Yukon River Chinook System – A Resilience Approach*
- 2014-present: GEBCO Sub-Committee on Regional Undersea Mapping
- 2014: Co-convener, ICES Annual Meeting Special Session: *Physical and biological consequences of North Atlantic circulation patterns*, A Coruña, Spain
- 2013-2014: UAF Chapman Chair workshop organizing committee “Fostering Yukon Chinook Resilience”
- 2010: WHOI ad hoc committee to select manufacturers for the OOI buoy power system.
- 2008: NSF reviewer for the technical final design review (FDR) panel for the NSF-funded Ocean Observatories Initiative (OOI)

Scientific Journal Peer Reviews

- *Climate Dynamics*
- *Communications Earth & Environment*
- *Continental Shelf Research*
- *Deep-Sea Research II: Topical Studies in Oceanography*
- *EOS*
- *Frontiers in Marine Science*
- *Geophysical Research Letters*
- *Journal of Geophysical Research: Biogeosciences*
- *Journal of Geophysical Research: Oceans*
- *Journal of Oceanography*
- *Journal of Physical Oceanography*
- *Nature*
- *Progress in Oceanography*

Public Service, Outreach, and Media

2023

- Invited Accountability Partner for First Alaskan’s Institute discussions.
- Participant and presenter at Alaska Eskimo Whaling Commission meetings, Utqiagvik, AK and Fairbanks, AK

2022

- Participant and presenter at Alaska Eskimo Whaling Commission meetings, Anchorage, AK
- Invited Accountability Partner for First Alaskan’s Institute Tribunal on Boarding Schools

2021

- Organizer & presenter for Osher Lifelong Learning Institute (OLLI) lecture series: Marine Science Special Topics: *Observing oceans and marine ecosystems in the 21st Century: How are we doing it, and what are we learning?* (16 September 2021)
- Invited Accountability Partner for First Alaskan’s Institute Tribunal on Protecting our Indigenous Ways of Life.

2020

- Contribution to Gizmodo Earther article [Bering Sea Ice Hasn't Been This Low in at Least 5,500 Years](#), (B. Kahn, 2 Sept. 2020)
- Presentation at Alaska Eskimo Whaling Commission meeting, Online, Jul. 2020

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Contribution to NSF blog post: [*Ocean research in the time of COVID-19: Expedition to the Gulf of Alaska keeps vital research and data collection on course*](#), (12 June 2020)
 - Contribution to EOS article *What it's like to social distance at sea* (J. Duncombe, 12 May 2020) <https://doi.org/10.1029/2020EO144098>
 - Contribution to Sea Technology article *RV Sikuliaq completes cruise using COVID-19 precautions* (29 May 2020)
 - Radio interview: Hometown Alaska program on Alaska Public Media with Kathleen McCoy (30 Mar. 2020)
 - Contribution to El Pais article *Arctic life has already changed due to climate change* (M. Raised, 26 Feb. 2020)
 - Contribution to UAF press release *Scientists document striking changes to Pacific Arctic ecosystems* (A. Bailey, 25 Feb. 2020)
 - Contribution to Alaska Public Media article *Dramatic ocean changes are coming 'a couple decades too early,' scientists say* (W. Early, 24 Feb. 2020)
 - Contribution to Eye on the Arctic blog post *Scientists sound alarm on striking transformation of Bering and Chukchi ecosystems as ocean warms* (E. Quinn, 24 Feb. 2020)
- 2019
- Presentation at Inuvialuit Game Commission meeting for Atautchikkun Ilitchisukluta project, Inuvik, Canada, December 2019
 - Contribution to Science News article *Vanishing Bering Sea ice threatens one of the richest U.S. seafood sources* (W. Cornwall, 15 May 2019)
 - Contribution to Fairbanks Daily News-Miner article *UAF researchers delve into the deep waters of the Chukchi Sea* (K. Long, 22 Apr. 2019)
 - Contribution to Associated Press article *Pace of Bering Sea change startles scientists* (D. Joling, 13 Apr. 2019)
 - Contribution to The Nome Nugget article *Slight Uptick in Cesium-127 Heralds Arrival of Fukushima Plume in Northern Bering Sea* (D. Haecker, 9 Mar. 2019)
 - Organizer & lecturer for Osher Lifelong Learning Institute (OLLI) fall lecture series *Marine Science*
- 2018
- Interview on local radio KIAK with Peter Van Nort, Fairbanks AK, Nov, 2018
 - Presentation at Arctic Waterways Safety Commission meeting, Anchorage, AK, Oct. 2018
 - Presentation at Alaska Eskimo Whaling Commission meeting, Fairbanks, AK, Jul. 2018
 - Contribution to The Nome Nugget article *UAF Research Vessel Sikuliaq Visits Nome* (J. Mason, 29 Jun. 2018)
- 2017
- Contribution to Ketchikan Daily News article *UAF vessel launches Bering research program* (E. Granger, 31 Jul. 2017)
 - Contribution to KNOM article *UAF research Vessel Begins Ecosystem Study in Bering and Chukchi Seas* (D. Hovey, 3 Jul. 2017)
 - Contribution to KNOM article *Scientists Study Spring Transition in Bering Strait Waters* (G. Colombo, 27 Jun. 2017)
 - Contribution to Fairbanks Daily News Miner article *UAF research vessel launches Bering research program, finds warmer Arctic waters* (E. Granger, 22 Jul. 2017)
 - Alaska Eskimo Whaling Commission meeting, Fairbanks, AK, Jul. 2017
 - Discussions with Bering Strait region tribally nominated village representatives, Jan. 2017
- 2016
- Discussions with Kotzebue Sound region tribally nominated village representatives, Dec. 2016
 - Discussions with Native Village of Gambell Tribal Council on St. Lawrence Island, Nov. 2016

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Discussions with Native Village of Savoonga Tribal Council representatives on St. Lawrence Island and by phone, Nov. 2016
- Presentation at meeting of the Indigenous Peoples Council on Marine Mammals, Oct. 2016
- Presentation to Alaska Eskimo Whaling Commission meeting, Anchorage, AK, Jul. 2016
- 2015
 - Contribution to The Nome Nugget article *Harmful algal toxin found in stranded minke whale* (D. Haecker, 19 Nov. 2015)
- 2014
 - UAF Museum of the North's Ocean Science Discovery Day
 - Osher Lifelong Learning Institute (OLLI) fall 2014 lecture series *Dive into Ocean Science*
 - Fairbanks Golden Heart Rotary Club function invited speaker, Fairbanks, AK, Apr. 2014
 - Classroom visit, Pearl Creek Elementary School to talk about oceanography, Mar. 2014
 - UAF Museum of the North Sikuliaq display - interviews and display contributions
 - Pribilof Island *Bering Sea Days* week of ocean exploration for St. Paul Island and St. George Island students and community members
- 2013
 - Kawerak Corporation's workshop *Indigenous Knowledge and Use of Bering Strait Region Ocean: Currents*, Nome, AK, Nov. 2013
 - Elementary Public school assistance: project on tidal energy, Mar. 2013
 - Pribilof Island *Bering Sea Days* week of ocean exploration for St. Paul Island and St. George Island students and community members
- 2012
 - Pribilof Island *Bering Sea Days* week of ocean exploration for St. Paul Island and St. George Island students and community members
- 2011
 - Pribilof Island *Bering Sea Days* week of ocean exploration for St. Paul Island and St. George Island students and community members
- 2010
 - BEST/BSIERP Professional Development Workshop in Anchorage, AK
- 2009
 - Center for Ocean Science Education Excellence (COSEE) "Salmon in the Classroom" teacher workshop, Fairbanks AK.
- 1997-present: Creator of numerous outreach-directed marine science web pages, including:
 - Beyond Just Science: <http://mather.sfos.uaf.edu/~seth/BeyondJustScience/>
 - Retrospective analysis of Norton Sound benthic communities: www.ims.uaf.edu/NS/
 - GAK1 long-term oceanographic monitoring timeseries: www.ims.uaf.edu/gak1/

Selected Presentations and Workshop Participation (Lead author citations only)

- 2022
 - Basin scale events to coastal impacts (BECI) Technology and Tools for Monitoring and Synthesis Workshop, Invited Speaker
- 2020
 - Enhancing Coastal and Ocean Observing and Innovation: OAR and IOOS Pacific Regional Workshop, Online, August 2020, Invited Moderator
 - Poster presentation, Heat over the Pacific Arctic Continental Shelves: Recent Changes in Content, Surface Fluxes and Throughput, Ocean Sciences meeting, San Diego, CA, February 2020
 - Poster presentation, Heat over the Pacific Arctic Continental Shelves: Recent Changes in Content, Surface Fluxes and Throughput, Alaska Marine Science Symposium, January 2020

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Oral presentation, Coordinating Future Research Efforts in the Bering Sea/Strait and Adjacent Regions, Alaska Marine Science Symposium Workshop, Anchorage, AK, January 2020
- 2019
- Oral presentation, Danielson Lab Updates, AOOS Board of Trustees, Anchorage AK, December 2019
 - Oral presentation, 21st Century Oceanography in the Last Frontier, RVTEC Keynote Speaker, Fairbanks, AK, October 2019
 - Oral presentation, Long-term changes in heat content, salinity and stratification over the Pacific Arctic and Subarctic continental shelves, Japan Geoscience Union Meeting 2019, Makuhari Messe, Chiba, Japan, May 2019
 - Oral presentation, Changing stratification over Alaska region continental shelves suggests altered diapycnal mixing and nutrient fluxes, OMIX Workshop, Tokyo, Japan, May 2019
 - Oral presentation, Impacts of recent warming on benthic and pelagic growth, respiration and deposition over the Northern Bering and Chukchi Sea continental shelves., Woods Hole Oceanographic Institute Seminar, Falmouth, MA, May 2019
 - Oral presentation, Retooling Alaska's Ice and Brine Factory, FOS Seminar, April 2019
 - Oral presentation, The Arctic Integrated Ecosystem Research Program: Observations of 2017-2018 conditions and consequences, Alaska Marine Science Symposium, January 2019
 - Oral presentation, Recent surface heat fluxes and thermal and sea ice conditions of the Bering-Chukchi Continental Shelf, Alaska Marine Science Symposium, January 2019
- 2018
- Oral presentation, On the Thermal and Sea Ice Conditions of the Bering-Chukchi Continental Shelf, AGU Fall Meeting, Washington DC, December 2018
 - Oral presentation, Rate Experiments of the Arctic Integrated Ecosystem Research Program, IARPC Ecosystem Collaboration Team meeting, November, 2018
 - Poster presentation, Acrobat Observations along the Gulf of Alaska Hydrographic Tightrope, Monterey, CA, LTER All-hands meeting, October 2018
 - Oral presentation, National Academies of Science, Engineering, and Medicine: Ocean Studies Board, Fairbanks, AK, September 2018
 - Participant, National Ecosystem Mooring Workshop, March 2018, Seattle, WA
 - Oral Presentation within: To unpathed waters, undreamed shores: Current and future marine research in the Gulf of Alaska Workshop on the Gulf of Alaska, Ocean Sciences Meeting, Portland, OR, February 2018
- 2017
- Oral presentation, Ice floes to seals, waves to whales. Linking high latitude marine ecosystem studies and researchers through physics. Sitka Whale Fest 2017, Sitka, AK, November 2017
 - Oral presentation, AIERP Update to the Pacific Arctic Group, Seattle WA, November 2017
 - 4th Pan-Arctic Marine Synthesis Workshop, Motovun, Croatia, October 2017
 - U.S.-Canada Northern Oil and Gas Research Forum, Anchorage, AK, October 2017
 - Recap of 2017 Arctic Integration Ecosystem Research Program field season to NPRB Board of Trustees, Cordova, AK, September 2017
 - Oral presentation, Attempting Multi-Disciplinary Measurements at Biologically & Physically Relevant Time & Length Scales, Gordon Research Conference, Ventura, CA, March 2017
- 2016
- Oral presentation, Oceanography of the North Pacific and Pacific Arctic: A mechanistic view of atmospheric drivers, oceanic pathways and change through time, RACArctic, Hakodate, Japan, March 2016

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Oral presentation, A Comparison Between Late Summer 2012 and 2013 Water Masses, Macronutrients, and Phytoplankton Standing Crops in the Northern Bering and Chukchi Seas. AGU-ASLO Ocean Sciences Meeting February 2016
- Oral presentation, A Northeastern Chukchi Shelf Ecosystem Observatory: Year 1 Results and Year 2 Build-out. AMSS January 2016
- Poster presentation, 1970 to 2015 Thermal and Haline Anomalies on the Northern Gulf of Alaska Continental shelf. Pacific Anomalies Workshop - II. 2016, January 2016

2015

- Oral presentation, Physical oceanography of Barrow Canyon in August 2013, Shelf Habitat and EcoLogy of Fish and Zooplankton (SHELFZ) PI meeting, January 2015
- Oral Presentation, Gulf of Alaska 2015 Anomalous Conditions: Oceanography, Workshop at Alaska Marine Science Symposium, January, 2015
- Poster presentation, 1970 to 2015 Thermal and Haline Anomalies on the Northern Gulf of Alaska Continental Shelf, Pacific Anomalies Workshop, Seattle, WA, January 2015

2014

- Oral presentation, Coupled wind-forced controls of the Bering-Chukchi shelf circulation and the Bering Strait throughflow: Ekman transport, continental shelf waves, and variations of the Pacific-Arctic sea surface height gradient, AGU Fall Meeting, San Francisco, CA, December 2014
- Oral presentation, GEBCO Sub-Committee on Regional Undersea Mapping workshop, Google Headquarters, Mountain View, CA, December 2014
- Oral Presentation to National Academies' Polar Research Board, November 2014
- Oral presentation, Ramifications of a longitudinally shifting Aleutian Low, ICES Fall Meeting Sustainability in a Changing Ocean, A Coruna, Spain, September 2014
- Oral presentation, Northern Bering and Chukchi Sea Physics, Nutrients, and Chlorophyll of late summer 2012 and 2013. ArcticEIS PI meeting, Juneau, AK, June 2014
- Oral presentation, Ocean physics: relevant mechanisms, length scales, and time scales. Fostering Resilience of Yukon Chinook Chapman Chair workshop, Fairbanks AK, April 2014
- Oral presentation, Fairbanks Golden Heart Rotary Club function, Fairbanks, AK, 18 April 2014
- Oral presentation, Coupled wind-forced controls of the Bering-Chukchi shelf circulation and the Bering Strait throughflow. AGU/ASLO Ocean Sciences Meeting, Honolulu, HI, February 2014
- Oral presentation, What's New in Bering Strait 2013 and Remote forcing of Bering Strait Transport. RUSALCA PI Meeting, Honolulu, HI, February 2014
- Oral presentation, Coupled wind-forced controls of the Bering-Chukchi shelf circulation and the Bering Strait throughflow: Ekman transport, continental shelf waves, and variations of the Pacific-Arctic sea surface height gradient. Alaska Marine Science Symposium, Anchorage, AK, January 2014
- Participant, AOOS workshop at Alaska Marine Science Symposium on ocean modeling in Alaskan waters, Anchorage, AK, January 2014

2013

- Oral presentation, Kawerak Corporation's workshop "Indigenous Knowledge and Use of Bering Strait Region Ocean Currents" in Nome, AK, November 2013
- Oral presentation, Bureau of Ocean Energy Management Model Review Board on results and validation of Arctic circulation-ice modeling, Herndon, VA, June 2013
- Participant, Wakefield symposium workshop *Toward a Conceptual Model for Arctic Shelf Ecosystems*, Anchorage, AK, March 2013
- Participant, Chukchi Sea Synthesis of Arctic Research (SOAR) Benthic System Analysis workshop, Anchorage, AK, March 2013

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Participant, Bering Sea Synthesis Workshop on population dynamics of large crustacean zooplankton, Friday Harbor, WA, February 2013
- Poster presentation, Alaska Marine Science Symposium on the Alaska Region Bathymetric Digital Elevation Model (ARDEM), Anchorage AK, January 2013

2012

- Oral presentation, Seminar on Bering Sea circulation given at Institute of Ocean Science, Victoria, BC, Canada, November 2012
- Oral presentation, US-Canada Northern Oil and Gas Research Forum in Anchorage, AK, November 2012
- Oral presentation, PICES meeting Ecosystem Studies of Subarctic Seas (ESSAS) workshop on Arctic-Subarctic interactions, Hiroshima, Japan, October 2012
- Participant, BEST Synthesis workshop at Bermuda Institute of Ocean Science: Impact of sea-ice on bottom-up and top-down controls of crustacean zooplankton and the mediation of carbon and energy flow in the eastern Bering Sea, Bermuda, February 2012
- Oral presentation, AGU/ALSO Ocean Science meeting, Circulation Dynamics of the central eastern Bering Sea shelf, Salt Lake City, UT, February 2012

2011

- Oral presentation, Oceanography of the Eastern Bering Sea Shelf: Important Processes, Inter-Annual Variability and Linkages to the Greater Ecosystem, American Fisheries Society (AFS) national meeting, Seattle WA, September 2011
- Oral presentation, Evaluation of a numerical model and application of results to understanding modes of variability in the Bering Sea ice/ocean/ecosystem, Ecosystem Studies of Sub-Arctic Seas (ESSAS), Comparative Studies of Climate Effects on Polar and Sub-Polar Ecosystems: Progress in Observation and Prediction, Seattle WA, May 2011

2010

- Oral presentation and participant, Bering Sea Ecosystem Professional Development Workshop: transforming BEST-BSIERP science into educational resources, Anchorage, AK, September 2010
- Poster presentation, Thermal and haline variability over the central Bering Sea shelf: Seasonal and inter-annual perspectives. AGU/ASLO Ocean Sciences meeting, Portland, OR, February, 2010
- Poster presentation, Seasonal and inter-annual temperature and salinity variability over the eastern Bering Sea shelf. Alaska Marine Science Symposium, Anchorage, AK, January 2010

2009

- Oral presentation, 2009 Alaska Marine Science Symposium, Anchorage, AK: Danielson, S., T. Weingartner, T. Reeve, W. Jones, 2009. A satellite-tracked drifter perspective of the nearshore Bering Sea: science and outreach.
- Oral presentation, 2009 Kuskokwim Area Interagency Fisheries Meeting, Anchorage, AK: S. Danielson, T. Reeve, T. Weingartner, W. Jones: Kuskokwim Bay current study
- Oral presentation, October 2009 Center for Ocean Science Education Excellence (COSEE) "Salmon in the Classroom" teacher workshops in Fairbanks, AK.

2008

- Poster presentation, 2008 Alaska Marine Science Symposium: Danielson, S., L. Eisner, K. Hedstrom, T. Weingartner, Z. Kowalik, 2008. A look at the summer evolution of stratification over the central Bering Sea shelf under changing climate conditions.
- Poster presentation, 2008 Alaska Marine Science Symposium, Anchorage, AK: Danielson, S., M. Johnson, S. Solomon and W. Perrie, 2008. 1 km Gridded Bathymetric Dataset Based on Ship Soundings: A research tool for the waters of eastern Russia, Alaska & western Canada.

CURRICULUM VITAE: SETH LOMBARD DANIELSON

- Poster presentation, 2008 AGU/ASLO Ocean Sciences meeting in Orlando, FL: Danielson, S., L. Eisner, K. Hedstrom, T. Weingartner, Z. Kowalik, 2008. A look at the summer evolution of stratification over the central Bering Sea shelf under changing climate conditions.
- Oral presentation, the 2008 North Pacific Anadromous Fish Commission (NPAFC) International Symposium on Bering-Aleutian Salmon International Surveys (BASIS): Climate Change, Production Trends, and Carrying Capacity of Pacific Salmon in the Bering Sea and Adjacent Waters, Seattle, WA: Danielson, S., L. Eisner, and T. Weingartner, 2008. Physical oceanographic conditions over the Bering Sea shelf, 2002-2007

SPONSORED PROJECTS AND COMMISSIONS

1. NGA-LTER Phase II: Resilience and Connectivity Across Transitions in the Northern Gulf of Alaska Ecosystem. August 2023. \$5,100,000. Co-PI
2. Extending UxS-based ecosystem monitoring across upper and lower trophic levels in support of Alaska Fisheries management. May 2023. \$178,872. Co-PI.
3. US Omnibus Appropriations Bill, Federal Earmark from US Senator L. Murkowski for glider-based ecological surveys. January 2023. \$1,750,000. PI.
4. Infrastructure funding for Alaska Ocean Observing. AOOS. December 2022. \$473,333, PI
5. AMBON-Linking Biodiversity Data in the Arctic, NASA, October 2022, \$1,646,044. Co-PI.
6. Cook Inlet Physical Oceanography, BOEM, October 2022. \$500,000. Co-PI.
7. Shifting Patterns in Phytoplankton Blooms, NPRB, \$216,230. September 2022. Co-PI
8. Environmental Drivers: Seward Line Marine Ecosystem monitoring in the Northern Gulf of Alaska. \$2,138,414. April 2022, Co-PI
9. Environmental Drivers: Oceanographic Station GAK1 Long Term Monitoring of the Alaska Coastal Current, EVOSTC, April 2022, \$1,588,440, PI.
10. Acoustic Tracking of Tanner Crab using and UAV glider near Kodiak, Alaska, \$30,000, March 2022, PI
11. Cook Inlet HF Radar, AOOS, January 2022, \$114,268, PI.
12. Collaborative Research: Taking the Pulse of the Arctic Ocean System, from the shelves to the Pole - A US Contribution to the International Synoptic Arctic Survey, NSF, \$343,401, Co-PI.
13. MOM6 Development, Princeton University, \$100,000, July 2021, PI.
14. Arctic Marine Biodiversity and Ecosystem Structure Data Synthesis and Analysis, BOEM-CMI, \$54,189, September 2020, PI.
15. Alaska Ecosystem Observatory Build-Out, Operations and Maintenance. AOOS, \$170,000, June 2021, PI.
16. An Arctic Marine Mammal observing system, AOOS, \$120,000. June 2021, PI.
17. Arctic High Frequency Radar Operations and Maintenance. AOOS, \$312,000, PI
18. Underwater Autonomous Vehicle missions in support of an Ecosystem Based Approach to Alaska fisheries management, AOOS/IOOS, February 2020, \$750,000, PI.
19. Demonstrating operational readiness of AUV-based ecosystem monitoring through a field program supporting the International Year of the Salmon, NOAA, January 2020, \$189,559, Co-PI.
20. Ecosystem monitoring and detection of wind and ice-mediated changes through a year-round physical and biogeochemical mooring in the Northeast Chukchi Sea Phase II, NPRB, November 2019, \$540,168, PI.
21. Western Beaufort and Chukchi Sea Surface Current Analysis, BOEM-CMI, November 2019, \$77,640, Co-PI
22. Landfast Ice Climatology within the Arctic OCS, BOEM, September 2019, \$1,699,293, Co-PI
23. Collaborative Oceanographic Monitoring in Southeast Alaska Parks, NPS, September 2019, \$415,000, PI
24. A sustainable, integrated AMBON in the Chukchi Sea, NOAA, September 2019, \$420,000, Co-PI

CURRICULUM VITAE: SETH LOMBARD DANIELSON

25. Atautchikkun Iiitchisukluta: Coming together to learn: Co-producing knowledge across the Northwest Passage, NSF, August 2019, \$249,793, Co-PI
26. Bering Strait High Frequency Radar, AOOS/IOOS, June 2019, \$1,108,286, PI.
27. North Slope Alaska High Frequency Radar, AOOS/IOOS, June 2018, \$624,000, PI.
28. An Arctic marine mammal observing system, AOOS/IOOS, June 2016, \$125,000, Co-PI.
29. LTER: Resilience in the Environmental Mosaic of the Northern Gulf of Alaska (NGA) Shelf Ecosystem, NSF, October 2017, \$5,635,000, Co-PI.
30. Three-dimensional structure of Arctic tides and near-inertial oscillations, and their role in changing the Arctic Ocean and ice pack, NSF, July 2017, \$397,974, Co-PI
31. Coastal hydrographic physical dynamics and oceanography assessments, National Park Service, October 2017, \$219,460, PI.
32. Northern Gulf of Alaska Marine Ecosystem Monitoring, M.J. Murdock Charitable Trust, December 2017, \$392,000, PI.
33. Arctic and Sub-Arctic Moored Ecosystem Observatory, AOOS, July 2016, \$450,000, PI.
34. ASGARD: Arctic Shelf Growth, Advection, Respiration and Deposition Rate Experiments, NPRB, May 2016, \$3,401,002, PI.
35. ASGARD vessel funding, Alaska Sikuliaq Program, May 2016, \$1,200,000, PI
36. Long-term Monitoring: Ecosystem Drivers Component Project: Long-term Monitoring of Oceanographic Conditions in the Alaska Coastal Current from Hydrographic Station GAK-1, EVOSTC, January 2017, \$665,486, PI.
37. UAF technical support at Amchitka Island Underground Nuclear Test Site for AK Department of Environmental Conservation, ADEC, October 2015, \$152,000, Co-PI.
38. Glacier Bay Oceanographic Investigations, NPS, September 2015, \$64,806, Co-PI.
39. Initiating an Arctic Marine Biodiversity Observing Network (AMBON), NOAA-NOPP, August 2014, \$3,728,899, Co-PI.
40. Measuring the pulse of the Gulf of Alaska: Oceanographic observations along the Seward Line, NPRB, September 2014, \$997,500, Co-PI.
41. Ecosystem monitoring and detection of wind and ice-mediated changes through a year-round physical and biogeochemical mooring in the Northeast Chukchi Sea., NPRB, December 2014, \$540,168, PI.
42. NE Chukchi Sea Ecosystem Moorings, AOOS, July 2013, \$400,000, PI.
43. Collaborative Research: Natural and anthropogenic controls on the inorganic carbon dynamics in the Chukchi Sea, NSF, August 2016, \$534,671, Co-PI.
44. Unraveling controls of inorganic carbon in the Gulf of Alaska, NSF, \$533,077, Co-PI.
45. Development of a Very High-resolution Regional Circulation Model of the Beaufort Sea Nearshore Areas, BOEM, September 2015, \$364,926, Co-PI.
46. Arctic Gadids in a Changing Climate, NPRB, September 2015, \$264,054, Co-PI.
47. Circulation and Hydrographic Structure of Kotzebue Sound, Native Village of Kotzebue, July 2014, \$30,879, PI.
48. Improvements to bathymetric digital elevation models spanning Alaska region waters, NPRB, July 2012, \$99,000, Co-PI.
49. Measuring the pulse of the Gulf of Alaska: Oceanographic observations along the Seward Line, NPRB, September 2014, \$997,500, Co-PI.
50. Ecosystem monitoring and detection of wind and ice-mediated changes through a year-round physical and biogeochemical mooring in the Northeast Chukchi Sea, NPRB, September 2014, \$542,000, PI.
51. Northeast Chukchi Sea Physical and Chemical Mooring, AOOS, July 2013, \$450,000, PI.
52. Shelf Habitat and EcoLogy of Fish and Zooplankton (SHELFZ), CIAP, March 2014, \$44,000, Co-PI.
53. Ecology of Forage Fishes in the Arctic Nearshore, North Slope Borough/Shell Baseline Studies program, July 2014, \$1,500,000 Spring 2014, Co-PI.

CURRICULUM VITAE: SETH LOMBARD DANIELSON

54. Coastal Community Ocean Observers (C2O2): A network of community-driven coastal ocean observations, NPRB, August 2014, \$182,000, Co-PI.
55. The southern Chukchi Sea's response to variations in Bering Sea circulation pathways, NPRB, August 2014, \$165,000, PI.
56. Cook Inlet Circulation Model Calculations, BOEM, December 2013, \$499,000, PI.
57. Collaborative Research – BEST Synthesis: The variable transport of pollock eggs and larvae over the Bering shelf: A marriage of physics and biology, NSF, August 2011, \$396,396, Co-PI.

BIOGRAPHICAL SKETCH

Seth Danielson's research seeks a more complete understanding of the mechanisms that regulate high latitude continental shelf ecosystems, with particular emphasis on drivers of environmental and ecological structure and variability. Danielson, a Professor of Oceanography at UAF's College of Fisheries and Ocean Sciences (CFOS), earned a B.S. in Electrical Engineering from Lehigh University in 1990, and M.S. and Ph.D. degrees in Oceanography from UAF in 1996 and 2012, respectively. He was the 2021 recipient of the Alaska SeaLife Center's Alaska Ocean Leadership Award for Marine Research. Ongoing studies include the NSF's Long-Term Ecological Research (LTER) site in the Northern Gulf of Alaska (NGA), maintaining the now 55-year GAK1 hydrographic time series in Resurrection Bay, Alaska, and overseeing a network of moored physics-to-whales ecosystem observatories on Alaska's Arctic and sub-Arctic continental shelves. Danielson led the Arctic Shelf Growth, Advection, Respiration and Deposition (ASGARD) rate experiments component of the North Pacific Research Board's 2016-2021 Arctic Integrated Ecosystem Research Program. He has served on the Science Advisory Council of the Alaska Sea Life Center in Seward, AK, on the North Pacific Research Board's Arctic Integrated Ecosystem Research Program's Science Steering Committee, on the University-National Oceanographic Laboratory System (UNOLS) Arctic Icebreaker Coordinating Committee (AICC) and on the US component of the Synoptic Arctic Survey's Science Steering Committee. He provides scholarly reviews for research proposals, book chapters, and peer-reviewed journal articles. Danielson leads multi-disciplinary expeditions on global and coastal class research vessels, including light icebreaker R/V Sikuliaq and coastal vessel R/V Nanuq. A growing focus of his work involves the application of underwater autonomous gliders to monitoring ecosystem conditions for the purpose of informing an ecosystem-based approach to fisheries management. Based out of labs in Seward and Fairbanks, AK, his fieldwork includes profiling and towed undulating conductivity-temperature-depth sensors, autonomous underwater vehicles, and oceanographic moorings. Danielson resides in Fairbanks, AK, in a self-designed wind and solar powered home. He plays clawhammer style 5-string banjo and is a founding member of the contradance and festival band *Ice Jam*.