Contact:
Bigelow Laboratory for Ocean Sciences
60 Bigelow Drive
East Boothbay, ME 04544

(207) 315-2567 ext. 419
kstamieszkin@bigelow.org

Education:

2011 – 2016	Ph.D. in Oceanography, School of Marine Sciences, University of Maine, Orono, ME
2007	M.E.Sc. Environmental Science, Yale School of Forestry and Environmental Studies, New Haven, CT
2002 – 2006	B.A. Environmental Studies, Yale University, New Haven, CT

Current position:

2022-present	**Research Scientist**, Bigelow Laboratory for Ocean Sciences, E. Boothbay, ME

Professional Experience:

2018 – 2021	**Postdoctoral Associate**, Virginia Institute of Marine Science, Gloucester Point, VA
2018 – 2021	**Adjunct Researcher**, Bigelow Laboratory for Ocean Sciences, E. Boothbay, ME
2017 – 2018	**Postdoctoral Researcher**, Bigelow Laboratory for Ocean Sciences, E. Boothbay, ME
2015 – 2016	**Michael J. Eckardt Dissertation Writing Fellow**, School of Marine Sciences, University of Maine, Orono, ME
2012 – 2015	**NSF Graduate Research Fellow**, School of Marine Sciences, University of Maine, Orono, ME & Gulf of Maine Research Institute, Portland, ME
2011 – 2012	**Ecosystem Modeling Lab Graduate Research Assistant**, Gulf of Maine Research Institute, Portland, ME & School of Marine Sciences, University of Maine, Orono, ME
2011	**Diamondback Terrapin Research Assistant**, Massachusetts Audubon Society, Wellfleet, MA
2010 – 2011	**Marine Policy Program Science Coordinator**, Provincetown Center for Coastal Studies, Provincetown, MA
2010 – 2011	**Cape Cod Commission District of Critical Planning Concern natural resources advisory working group member**, Provincetown Center for Coastal Studies, Provincetown, MA

2008 – 2011	**Right Whale Habitat Studies Associate Scientist**, Provincetown Center for Coastal Studies, Provincetown, MA

Teaching Experience:

2022-present	**Research Faculty,** "Intro to Ocean Science," Colby College, Waterville, ME
2018-2019	**Undergraduate thesis committee**, Colby College, Waterville, ME
2017, fall semester	**Laboratory Instructor**, Bigelow/Colby College, E. Boothbay, ME
2016 – 2017	**Adjunct Professor**, Unity College, Unity, ME
2015, single lecture	**Guest Lecturer**, Unity College, Unity, ME
2012, single lecture	**Guest Lecturer**, Bowdoin College, Brunswick, ME
2012, fall semester	**Volunteer Teaching Assistant**, Darling Marine Center, University of Maine, Walpole, ME
2009 – 2010	**Interim Education Program Coordinator**, Provincetown Center for Coastal Studies, Provincetown, MA

At-sea Research Experience:

2023, 6 days	**Zooplankton lead**, NSF-funded biological proxies cruise, Gulf of Maine
2018, 35 days	**Postdoctoral Associate**, NASA EXPORTS cruise, Subarctic NE Pacific
2014, 9 days	**Chief Scientist-in-Training,** UNOLS training cruise, Barbados to Bermuda
2012, 7 days	**Co-Principal Investigator,** Ocean Acidification and Zooplankton Cruise, School of Marine Sciences, University of Maine, Gulf of Maine
2011/2012, 40 days	**Zooplankton Research Assistant**, Palmer LTER Research Cruise, Virginia Institute of Marine Science, West Antarctic Peninsula
2010, 26 days	**Acoustics Research Assistant**, Zooplankton Acoustics Cruise, SUNY Stony Brook, West Antarctic Peninsula
2009/2010, 40 days	**CTD operator and cruise intern**, CLIVAR P6, Scripps Institute of Oceanography, Southwest Pacific Ocean - Australia to Tahiti

Publications:

Chalif JI, et al. including **Stamieszkin K** (in press) Pollution drives enigmatic decline in subarctic biogenic sulfur. *Nature Geoscience*.

Millette, NC, et al. including **Stamieszkin K** (2024) Recommendations for advancing mixoplankton research through empirical-model integration. *Frontiers in Marine Science* 11. doi: 10.3389/fmars.2024.1392673

Stamieszkin K, Millette NC, Luo JY, Follett EM, Record NR, Johns DG. (2024) Large protistan mixotrophs in the North Atlantic Continuous Plankton Recorder time series: associated environmental conditions and trends. *Frontiers in Marine Science* 11. doi: 10.3389/fmars.2024.1320046

Bisson KM, Gassó S, Mahowald N, Wagner S, Koffman BG, Carn SA, Deutsch S, Gazel E, Kramer S, Krotkov N, Mitchell CE, Pritchard ME, **Stamieszkin K**, Wilson C (2023) Observing ocean ecosystem responses to volcanic ash. Remote Sensing of Environment 296:113749.

Shea CH, Wojtal PK, Close HG, Maas AE, **Stamieszkin K**, Cope JS, Steinberg DK, Wallsgrove N, Popp BN (2023) Small particles and heterotrophic protists support the mesopelagic zooplankton food web in the subarctic northeast Pacific Ocean. Limnology and Oceanography 68(8):1949-1963. doi: 10.1002/lno.12397.

Millette NC, Gast RJ, Luo JY, Moeller HV, **Stamieszkin K**, Andersen KH, Brownlee EF, Cohen NR, Duhamel S, Dutkiewicz S, Glibert PM, Johnson MD, Leles SG, Maloney AE, Mcmanus GB, Poulton N, Princiotta SD, Sanders RW, Wilken S. (2023) Mixoplankton and mixotrophy: future research priorities. *J Plankton Res* 45(4):576-596. doi: 10.1093/plankt/fbad020.

Hudak CA, **Stamieszkin K**, Mayo CA (2023) North Atlantic right whale Eubalaena glacialis prey selection in Cape Cod Bay. *Endangered Species Research* 51:15-29.

Friedland KD, Record NR, Pendleton DE, Balch WM, **Stamieszkin K**, Moisan JR, Brady DC (2023) Asymmetry in the rate of warming and the phenology of seasonal blooms in the Northeast US Shelf Ecosystem. *ICES Journal of Marine Science* 80(4):775-786. doi: 10.1093/icesjms/fsad007.

Steinberg DK, **Stamieszkin K**, Maas AE, Durkin CA, Passow U, Estapa ML, Omand MM, McDonnell AMP, Karp-Boss L, Galbraith M, Siegel DA (2023) The outsized role of salps in carbon export in the subarctic Northeast Pacific Ocean. *Global Biogeochemical Cycles*. doi: 10.1029/2022GB007523

Omand MM, Steinberg DK, **Stamieszkin K** (2021) Cloud shadows drive vertical migrations of deep-dwelling marine life. *Proceedings of the National Academy of Sciences*, doi:10.1073/pnas.2022977118

Siegel DA, et al. (2021) Overview of the EXport Processes in the Ocean from RemoTe Sensing. *Elementa: Science of the Anthropocene* 9(1): 00107, doi: 10.1525/elementa.2020.00107

Stamieszkin K, Steinberg DK, Maas AE (2021) Fecal pellet production by mesozooplankton in the subarctic Northeast Pacific Ocean. *Limnology and Oceanography*, doi: 10.1002/lno.11774

Maas AE, Miccoli A, **Stamieszkin K**, Carlson C, Steinberg DK (2021) Allometry and the calculation of zooplankton active flux. *Journal of Plankton Research*, doi: 10.1093/plankt/fbab028

Pershing AJ, **Stamieszkin K** (2020) The North Atlantic ecosystem, from plankton to whales. *The Annual Review of Marine Science* 12: 339-359. Doi: 10.1146/annurev-marine-010419-010752

Record NR, Runge JA, Pendleton DE, Balch WM, Davies KTA, Pershing AJ, Johnson CL, **Stamieszkin K**, Feng RJZ, Kraus SD, Kenney RD, Hudak C, Mayo CA, Chen C, Salisbury J, Thompson CRS (2019) Rapid climate-driven circulation changes threaten conservation of endangered North Atlantic right whales. *Oceanography* 32. Doi: 10.5670/oceanog.2019.201

Staudinger M, Mills, KE, **Stamieszkin K** et al. (2019) It's about time: phenology of the Gulf of Maine. *Fisheries Oceanography* 28(5): 532-566. Doi: 10.1111/fog.12429

Brun P, **Stamieszkin K**, Visser AW, Licandro P, Payne MR, Kiørboe T (2019) Climate change has altered zooplankton-fuelled carbon export in the North Atlantic. *Nature Ecology and Evolution*, doi: 10.1038/s41559-018-0780-3

Record NR, Balch WM, **Stamieszkin K** (2018) Century-scale changes in phytoplankton phenology in the Gulf of Maine. *PeerJ*. Preprints6:e27425v1 https://doi.org/10.7287/peerj.preprints.27425v1

Schuetz J, Mills KE, Allyn A, **Stamieszkin K**, LeBris A, Pershing AJ (2018) Complex patterns of temperature sensitivity, not ecological traits, dictate diverse species responses to climate change. *Ecography,* doi: 10.1111/ecog.03823

Polashenski DJ, Osterberg EC, Koffman BG, Winski D, **Stamieszkin K**, Kreutz KJ, Wake CP, Ferris DG, Introne D, Campbell S, Lewis GM (2018) Denali ice core methanesulfonic acid records north Pacific marine primary production. *Journal of Geophysical Research - Atmospheres,* doi: 10.1029/2017JD028123

Stamieszkin K, Poulton NJ, Pershing AJ (2017) Zooplankton grazing and egestion shifts particle size distribution in natural communities. *Marine Ecology Progress Series* 575: 43-56, doi: 10.3354/meps12212

Guy-Haim T et al. (2017) What are the type, direction and strength of species, community, and ecosystem responses to warming in aquatic mesocosm studies and their dependency on experimental characteristics? A systematic review protocol. *Environmental Evidence*, doi: 10.1186/s13750-017-0084-0

Record NR, O'Brien JD, **Stamieszkin K**, Runge JA (2016) Omic-style statistical clustering reveals old and new patterns in Gulf of Maine zooplankton data. *Canadian Journal of Fisheries and Aquatic Sciences*. doi: 10.1139/cjfas-2016-0151

Stamieszkin K, May MA, Chase A (2016) Student-led retreats for graduate student cohesion and career success. *Oceanography* 29: 80-81, doi: 10.5670/oceanog.2016.18

Stamieszkin K, Pershing AJ, Record NR, Pilskaln CH, Dam HG, Feinberg LR (2015) Size as the master trait in modeled copepod fecal pellet carbon flux. *Limnology and Oceanography,* doi: 10.1002/lno.10156

Pershing AJ, Mills KE, Record NR, **Stamieszkin K**, Wurtzell KV, Byron C, Fitzpatrick D, Golet W, Koob E (2015) Evaluating trophic cascades as drivers of regime shifts in different ocean ecosystems. *Philosophical Transactions of the Royal Society B* 370. Doi: 10.1098/rstb.2013.0265

Parks SE, Warren JD, **Stamieszkin K**, Mayo CA & Wiley DN (2011) Dangerous dining: surface foraging of right whales increases risk for vessel collisions. *Biology Letters* 8: 57-60, doi: 10.1098/rsbl.2011.057

Stamieszkin K, Wielgus J, Gerber LR (2009) Management of a marine protected area for sustainability and conflict resolution. *Ocean & Coastal Management* 52: 449-458.

Selected Presentations:

Clements DJ, **Stamieszkin K**, Record NR, Maas A, Blanco-Bercial L (2024) Poster presentation: ZTRACE: Developing a trait-based model of zooplankton mediated carbon fluxes during iron fertilization experiments, Ocean carbon and Biogeochemistry summer workshop, Woods Hole, MA, USA.

Stamieszkin K, Koffman BG, Twining BS, Mitchell C (2024) Poster presentation: Phytoplankton response to different terrestrial micronutrient sources in the HNLC Northeast Pacific, Ocean carbon and Biogeochemistry summer workshop, Woods Hole, MA, USA.

Stamieszkin K, Twining BS, Mitchell C, Koffman BG, Guercio T, Sofen LE, Drapeau DT, Rauschenberg S (2024) Oral presentation: Phytoplankton response to volcanic ash and dust in the high-nutrient, low-chlorophyll Northeast Pacific. Alaska Marine Science Symposium, Anchorage, AK, USA.

Stamieszkin K (2021) Invited seminar: Zooplankton ecology impacts upper ocean carbon distribution. Scripps Institution of Oceanography Ecology Seminar, virtual.

Stamieszkin K (2020) Invited oral presentation: The role of mesozooplankton in the ocean's biological carbon pump. The Delta Science Program Zooplankton Ecology Symposium, virtual.

Stamieszkin K, Steinberg DK, Maas AE (2020) Oral presentation: The role of mesozooplankton community structure in fecal pellet carbon production in the subarctic Northeast Pacific Ocean. Ocean Sciences Meeting, San Diego, CA, USA.

Stamieszkin K, Brun P, Maas A, Steinberg DK (2019) Invited oral presentation: Using allometry to model copepod-mediated carbon flux – how well do we estimate key rates and variables. Ocean Carbon and Biogeochemistry summer workshop, Woods Hole, MA, USA.

Stamieszkin K (2019) Invited oral presentation: Gulf of Maine warming runs deep. The Island Institute's Fisherman's Climate Roundtable, Rockland, ME, USA.

Stamieszkin K, Record NR, Thomas AC, Kerr LA, Mills KE (2018) Oral presentation: Seasons in the ocean: Phenology indices for climate assessment. Ocean Sciences Meeting, Portland, OR, USA.

Stamieszkin K, Millette N, Follett E, Luo J (2017) Poster: Conditions for mixotrophy in the ocean. Trait-Based Approaches to Ocean Life, Osøyro, Norway.

Stamieszkin K (2016) Lightening talk: How plankton impact the earth's climate cycle. New England Ocean Science Education Collaborative conference, Portland, ME, USA.

Stamieszkin K, Poulton N, Pershing AJ (2016) Oral presentation: Zooplankton grazing effects on particle size spectra under different seasonal conditions. Ocean Sciences Meeting, New Orleans, LA, USA.

Stamieszkin K, Mills KE, Record NR (2015) Oral presentation: Size structure of the Gulf of Maine ecosystem across multiple trophic levels. Regional Association for Research on the Gulf of Maine, Portsmouth, NH, USA.

Stamieszkin K, Pershing AJ (2015) Oral presentation: Changes in North Atlantic copepod community size structure and fecal pellet carbon flux over 55 years. Trait-Based Approaches to Ocean Life, Waterville Valley, NH, USA.

Stamieszkin K, Pershing AJ, Record NR (2014) Oral presentation: Using copepod physiology and biogeography to understand variability in the biological carbon pump. Ocean Sciences Meeting, Honolulu, HI, USA.

Stamieszkin K, Record NR, Pershing AJ (2013) Poster: How does copepod body size influence the flow of carbon through marine ecosystems? Trait-based Approaches to Ocean Life, Copenhagen, Denmark, USA.

Stamieszkin K, Brault S, Mayo CA. (2009) Oral presentation: Quantifying the Relationship between Zooplankton Resource and Right Whale Behavior: a step toward risk prediction. North Atlantic Right Whale Consortium Meeting, New Bedford, MA, USA.

Grants and Awards

ARPA-E SEA-CO2, "Monitoring, Reporting and Verification of Zooplankton-Mediated Export Pathways for Carbon Sequestration," Principal investigator (expected: 2024-2027) $2.4M

NSF Biological Oceanography, "Collaborative Research: Investigating the relationship between size and the balance between carbon acquisition modes in mixotrophic protists," Co-Investigator (2022-2025) $522,963

North Pacific Research Board, "Developing and teaching 'Volcanos and the Ocean Ecosystem': a course for Pribilof Islands students," Co-Investigator (2021-2024) $16,700

North Pacific Research Board, "Impacts of fresh and aged volcanic ash on phytoplankton in the subarctic Northeast Pacific," Co-Investigator (2021-2024) $596,616

NSF Biological Oceanography, "Collaborative Research: Sources and transformations of export production: A novel 50-year record of pelagic-benthic coupling from coral and plankton bioarchives," Co-Investigator (2021-2024) $928,486

NSF Ocean Carbon and Biogeochemistry Working Group, "Mixotrophs and Mixotrophy," Co-Investigator (2020-2022) $29,097

M.J. Eckardt Dissertation Fellowship (2015) $20,000

NSF Graduate Research Fellowship (2012) $138,000

Ruth Hiebert Memorial Fellowship (2011) $5,000

Jubitz Family Endowment for Research Internships (2006)

Carpenter/Sperry Summer Internship Fund (2006)

Memberships & Special Programs

2021-2023 Mixotrophs and Mixotrophy OCB Working Group co-investigator
2019, 2022 Trait Based Approaches to Ocean Life Scientific steering committee
2017 Hjort Summer School
2016 Ecological Dissertations in the Aquatic Sciences
2014 UNOLS Chief Scientist Training Cruise
American Society of Limnology and Oceanography
American Geophysical Union