Benjamin Lowin

Marine Technician, University of Georgia

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My interest lies in understanding how climate change is affecting and being affected by the abundance and distribution of phytoplankton. As the source of nearly all primary production in marine ecosystems, understanding the controls on phytoplankton is critical for studying subjects ranging from food security to climate change mitigation.

Professional Preparation

2020-2022	University of Alaska Fairbanks, USA	Ph.D. - Oceanography
2018-2019	University of Southampton, UK	M.Sc. - Biological Oceanography
2013-2018	University of British Columbia, Canada	B.Sc. - Biology and Oceanography

Presentations

2021 Alaska Marine Science Symposium, Poster Presentation, PI
Title: Quantifying phytoplankton biomass and productivity at unprecedented spatial scales in the Northern Gulf of Alaska LTER program using ship-board optical measurements

2019 Masters Dissertation, Oral Presentation, PI
Title: Is the Great Calcite Belt Moving: an analysis of AVHRR data from 1979 to 2017?

2019 Proposal for Long-term time series in the GOA, Oral Presentation, Class project, PI

Grants/Awards

2021 NASA Sponsored Workshop on Calibration and Validation of Ocean Color Remote Sensing. Full sponsorship for month long course. Attended and received an A.

2021 NASA Minority Serving Institutions fellowship, $55,000, FI, not funded
Title: Examining the phytoplankton community in the Northern Gulf of Alaska via shipboard measurements, long-term timeseries, and remote sensing

2021 NASA FINESST fellowship, $135,000, FI, not funded
Title: Elucidating patterns and controls of phytoplankton production and export in the Northern Gulf of Alaska using regional validation of in-situ bio-optics and remote sensing estimates

2021 Rasmuson Fellowship, $35,000, PI, not funded
Title: High resolution primary production in the Gulf of Alaska

2020 Alaska Space Grant, $22,436, PI, Funded
Title: Validating A Bio-Optical Measurement Technique in the Northern Gulf of Alaska

2020 NPRB Outreach Grant , $19,997, Co-PI, Funded
Title: Students Observing Sikuliaq Satellite Information (SOSSI) 'Saucy'

2019 University of Southampton Deans list

2019 John Raymont Memorial Prize, £50, for the highest aggregate mark in Masters program

2010 Woods Hole Oceanographic Institution: Summer Student Fellowship

Outreach

2021	Three min thesis competition finalist
2021	The Students Observing Sikuliaq Satellite Information (SOSSI) program
2018-2019	M.Sc. Student representative
2014-2018	Student club leader – Wargamers -Boardgames club

Appointments

2022-present	Marine Technician at the University of Georgia Supervisor: Sara Rivero-Calle
2020-2021	Research Assistant at the University of Alaska Fairbanks Mentor: Will Burt

Skills

- MATLAB coding (Both Masters and PhD used this extensively)
- At sea sampling for gases (O_2 & CO_2), HPLC, PIC/POC, chlorophyll (via filtration), nitrate, phosphate, DNA and surface, vertical and deep next tows.
- 24 bottle Rosset, operation and deployment
- Light field and fluorescence microscope
- Class 3 biological and fire hazard safety skills
- ACS, BB3, fluorometer and other optical instruments, maintenance, calibration and upkeep
- Micro-pipet work for DNA clean environments
- PADI rescue diver (10+ specialty certifications, including Underwater Naturalist, Night Diver and Underwater Navigator)
- CPR and First Aid certified by the Red Cross and Swiss Government
- Spoken and Written French at A1 level

Field Expeditions

R/V Sikuliaq	NGA-LTER program – Chief Sci. - Russ Hopcroft, Science crew - Sep 2020, Apr & July 2021 (43 days). Responsible for O_2, CO_2, HPLC, Chlorophyll, PIC/POC, and In-line bio-optics system (ACS & BB3). Assisted with sediment trap deployment.
R/V Sikuliaq	BAITMIX cruise – Chief Sci. – Tylor Hennon, Science Crew – May 2021 (9 days). Responsible for Chlorophyll, and In-line bio-optics system (ACS & BB3). Assisted with 500 m drifter deployment.
R/V Callista	Southampton master's program, Student – October 2019 (2 days). Responsible for chlorophyl, nitrate, phosphate, O_2 and ADCP.
Bamfield Marine Sci. Center	Field course on invertebrates and undergraduate research project May-June 2017 (1.5 months) and February 2018 (9 days).