

# Emma Dullaert

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## Skills

- Fluent in Dutch and English
- Data analysis in MATLAB
- Oceanographic data collection on research vessels
- Taxonomic identification of phytoplankton and zooplankton
- Trained in safe laboratory and fieldwork practices and human subjects research (IRB).
- 6+ years of experience in customer service

## Education

M.S. Oceanography

Expected Graduation Spring 2023

University of Maine – Orono, ME

B.S. Marine Science, concentrations in Oceanography and Marine Biology

Graduated Spring 2021, magna cum laude

University of Maine – Orono, ME

High School Diploma

Graduated Spring 2017, cum laude

South Burlington High School – South Burlington, VT

## Research History

Graduate Research Assistant, 08/2021 to present

University of Maine – in collaboration with Dr. Lee Karp-Boss and Dr. Jeffrey Runge

Funded by the Marine Biodiversity Observation Network (MBON)

- Spatial and temporal analysis of zooplankton biomass and biodiversity data in the Gulf of Maine (GOM).
- Assisting in the collection of zooplankton samples and oceanographic data at two offshore stations in the Gulf of Maine.
- Work is expected to result in a thesis in fulfillment of the requirements for a master's degree.

Graduate Research Assistant, 05/2021 to 07/2021

Thomas Lab, University of Maine – Orono, ME

- Analyzing shellfish toxicity data and satellite measured ocean color

- Using and further developing data analysis skills in MATLAB

Student Research Assistant, 01/2018 to 05/2021

Karp-Boss Lab, University of Maine – Orono, ME

- Taxonomic photo identification of phytoplankton and zooplankton using EcoTaxa software.
- Maintaining phytoplankton cultures in the laboratory.

Undergraduate Research Assistant in Fish Community Structure and Human Dimensions 06/2019 to 03/2020

University of Maine & University of Maine Machias

- Work as a part of an interdisciplinary team consisting of students and faculty from various disciplines with the ultimate goal of preparing a collaborative manuscript for publication.
- Conduct weekly fishing surveys to document species presence and size data.
- Assist with the collection and compilation of information from community meetings to document local historical and traditional ecological knowledge.
- Communicating research findings with peers through email updates as well as two opportunities to present a poster at conferences.

## **Independent Studies**

Undergraduate Capstone Research Experience, 2020/2021 Academic Year.

University of Maine – in collaboration with Dr. Lee Karp-Boss and Dr. Jeffrey Runge

- Spatial and temporal analysis of zooplankton biomass in the Gulf of Maine (GOM).
- Specific focus on species of *Calanus*, a key functional component of the GOM ecosystem.
- Products include a written summary of research outcomes and a poster for presentation.

Independent Study in MATLAB – Hydrographic Variability in the Gulf of Maine

Spring 2020

University of Maine – in collaboration with Dr. Andrew Thomas

- Using NERACOOS data to conduct spatial and temporal analysis of physical parameters in the Gulf of Maine to:
  - 1) investigate overall trends of warming and/or cooling,
  - 2) quantify the relationship between temperature variability and trends at the sea surface with those occurring at depth, and
  - 3) quantify any trends in the timing (beginning, duration, end) of seasonal stratification, a key environmental metric of biological importance
- Final product: poster presenting research findings.

## Independent Study in MATLAB – Sea Surface Temperature Change in the North Sea, Fall 2019

University of Maine – in collaboration with Dr. Andrew Thomas and Mackenzie Cooper

- Analysis of spatial and temporal patterns of change sea surface temperature in the North Sea using MATLAB technology with Optimally Interpolated Sea Surface Temperature (OISST) data.
- Final product: poster presenting research findings.

## **Other Current and Recent Positions**

### Catering Waitstaff 09/2019 to present

Jolain's Gourmet Catering – Hermon, ME

- Wedding and event catering
- Serving from a buffet and plated meals

### Residential Life Director 08/2021 to 12/2021

Darling Marine Center – Walpole, ME

- Providing 24/7 support for undergraduate students attending an immersive, semester-long residential marine science program
- Organizing events, outings, and once-weekly take-out meals

### Undergraduate Teaching Assistant 01/2021 to 05/2021

SMS430 Microbes in the Marine Environment with Prof. Jeremy Rich – Orono, ME

- Grading and providing useful feedback on assessments (reports, slide presentations, weekly reading questions)
- Communicating with students to help complete assignments
- Assisting with preparation of class material
- Course bookkeeping

## **Publications**

Cammen, K., G. Marafino, S. Burton, J. Dow, **E. Dullaert**, M. Jorge, K. Macolini, L. McGarry, C. Tremblay, J. Jansujwicz, T. Johnson, L. Ross, and G. Zydlewski. 2021. *Interdisciplinary research collaborative trains students to see through turbulent systems*. *Oceanography* 34(1), <https://doi.org/10.5670/oceanog.2021.102>.

## **Presentations**

**Emma Dullaert**. *Spatial and Temporal Variability in Zooplankton Biomass in the Gulf of Maine*. Poster presentation. Presented during the Flash Poster Session at the UMaine Student Symposium, 04/16/2021

**Emma Dullaert**, Gabriella Marafino, Jessica Jansujwicz, Gayle Zydlewski, Kristina Cammen. *Understanding the fish community structure and human dimensions of the Western Passage ecosystem*. Poster presentation. Presented at SEA Fellows Symposium, Darling Marine Center, 08/06/2019.

Sarah Burton, Jillian Dow, **Emma Dullaert**, Madalyn Jorge, Kate Macolini. *An interdisciplinary approach to environmental monitoring in Western Passage*. Poster Presentation. Presented at Eastern Maine Coastal Current Collaborative State of the Science Conference, 06/17/2019.