

# Andrea C. Stumpf

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## EDUCATION

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VILLANOVA UNIVERSITY, Department of Geography and the Environment

*Master of Environmental Science, to be awarded May 2020*

**Thesis:** Tidal marsh response to sediment deposition from seasonal storms

- Performed field and lab work in support of National Science Foundation (NSF) funded projects at the Delaware River salt marshes, and the Plum Island Ecosystem Long Term Ecological Research Site.
- Utilized EGM-4 PP systems to measure carbon, SETs to measure short term accretion, measuring  $^{210}\text{Pb}$  and  $^{137}\text{Cs}$  on cores using a Gamma Counter, loss on ignition protocol for measuring organic content, YSI to measure pH and oxygen, and spectrophotometer to measure ammonium, nitrate, and phosphate.

BROOKLYN COLLEGE, CITY UNIVERSITY OF NEW YORK

*Master of Fine Arts, Theater Design and Technical Production, awarded 2010*

NEW YORK UNIVERSITY, Gallatin School of Individualized

*Bachelor of Arts, Individualized Study, Magna Cum Laude*

## RELEVANT SCIENCE COURSEWORK

NORTHEASTERN UNIVERSITY, OREGON STATE, Spring 2015-Fall 2018

Biology 1, 2, & 3 | Principles of Chemistry 1, 2, & 3 | Organic Chemistry 1 & 2 | Genetics | Geographic Information Science I

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## PROFESSIONAL EXPERIENCE

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VILLANOVA UNIVERSITY, Villanova PA

September 2018 – May 2020

### Graduate Assistant

- Support faculty with the instruction and grading of lab and homework assignments of undergraduate students taking courses within the Department of Geography and the Environment.
- Ensure all necessary classroom materials are cleaned and available for student lab assignments.
- Provide program support as needed to visiting professional speakers.

BOSTON UNIVERSITY, Boston, MA

November 2016 – March 2018

### Research Intern

- Evaluated original research project of coral physiological tolerance to salinity for Biology Department.
- Designed microfluidics protocol to examine polyp-level response to stressors.

NEW ENGLAND AQUARIUM, Boston, PA

June 2016 – November 2016

### Coral Research Intern

- Assisted with daily husbandry of temperate and tropical corals for research department of public aquarium.
- Designed a study to examine temperate and tropical coral response to salinity using a fluorescence-enabled stereomicroscope with HD time lapse photography.
- Assisted with ongoing immunology research project in collaboration with Boston Children's Hospital, and Harvard University.
- Learned protocols on RNA extraction and purification and coral happiness index (CHI) involving the visible behavior of individual polyps.

LEXINGTON PUBLIC SCHOOL SYSTEM, Lexington, MA

January 2011-June 2016

### Technical Director/Auditorium Manager

- Maintained a calendar and schedule for 6 drama and 15 yearly music performances for the school district.
- Taught courses in theater design, including writing the syllabus and organization of curricular materials.
- Organized and implemented technical assistance for organizations renting the auditorium space.
- Responsible for oversight of technical productions, including crews of up to 25 students.

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## ADDITIONAL SKILLS

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- Technical: Excel, ArcGIS, ArcMap, RStudio, Wordpress, Vectorworks, Final Cut Pro
- Certified: Scuba Diving, Open Water PADI certified diver, certification number 16080G1185

## VOLUNTEER EXPERIENCE

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### SUDBURY VALLEY TRUSTEES, **Preserve Steward**

June 2015-July 2018

- Maintained trails and signage.
- Reported all nature sightings and problems.
- Restored stream banks, removed invasive plants, and replanted native species.

## CONFERENCES

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Oral Presentation, "Tidal Marsh Response to Sediment Deposition from Seasonal Storms", Atlantic Estuarine Research Society Spring 2020 Meeting, March 2020 (canceled due to COVID-19)

Oral Presentation, "Tidal marsh response to sediment deposition from seasonal storms", Plum Island Estuary Long Term Ecological Research Site Annual All Scientists Meeting, February 2020

Poster Presentation, "Tidal marsh response to sediment deposition from seasonal storms", CERF Annual Meeting, November 2019

Poster Presentation, "Fate of sediment from seasonal storm deposition events", ESA 104<sup>th</sup> Annual Meeting, August 2019

## PROFESSIONAL MEMBERSHIPS

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CERF and AERS (Coastal and Estuarine Research Federation and affiliate Atlantic Estuarine Research Society)

ESA (Ecological Society of America)

SWS (Society of Wetland Scientists)

AAAS (American Academy for the Advancement of Science)