# Education

Ph.D. **MIT-WHOI Joint Program in Oceanography and Applied Ocean Science & Engineering.** 2010 - In progress. Marine Geology & Geophysics Department. Investigating the Evolution of Barrier Islands to Accelerated Sea Level Rise with an alongshore-coupled Cross-shore Morphodynamic Model. Andrew Ashton.

M.S. **MIT.** 2011 - 2012. Civil and Environmental Engineering Department. Investigation of the Effect of a Circular Patch of Vegetation on Turbulence Generation and Sediment Deposition Using Four Case Studies. Heidi Nepf.

B.A. **Wellesley College**. 2006 – 2010. Geosciences & Classical Civilizations. Honors in Geosciences & cum laude. Sigma Psi. Senior Thesis in Geosciences. Investigating the Effect of Wave Energy on Coastal Morphology and Beach Sedimentology Using Real and Modeled Wave Data. Britt A. Argow.

H.S. **Ransom Everglades**. 2002 - 2006.

H.S. **School Year Abroad**. 2005-2006. Italy. Classical Studies with home-stay.

# Research Experience

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| --- | --- | --- |
| * Coastal Geomorphology. Barrier Island Evolution with Rising Sea Level. |  | 2010 - Present |
| * Fluid Dynamics. Turbulent and Mean Velocity Near Rigid and Flexible Plants, and Implications for Deposition. |  | 2011-2012 |
| * Coastal Sedimentology. Wave Energy on Coastal Morphology and Sedimentology for Vieques, Puerto Rico. |  | 2009-2010 |
| * Marine Microbiology. Effects of Highlight energy on picophytoplankton. |  | 2005-2009 |
| * Marine Biology. Lobster Larvae Identification and Distribution. |  | 2004 |

# Publications

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| --- | --- | --- |
| * Chen, Z., et al. (2012 (in press)), The wake structure behind a porous obstruction and its implications for deposition near a finite patch of emergent vegetation, Water Resources Research. |  | 2012 (in press) |
| * Ortiz, A. C. (2012), Investigating the Effect of a Circular Patch of Vegetation on Turbulence Generation and Sediment Deposition Using Four Case Studies, 116 pp, MIT, Cambridge. |  | 2012 |
| * Ortiz, A. C. (2010), Investigating the Effect of Wave Energy on Coastal Morphology and Beach Sedimentology Using Real and Modeled Wave Data, Honors thesis, 89 pp, Wellesley College, Wellesley. |  | 2010 |
| * Cuvelier, M. L., et al. (2008), Widespread distribution of a unique marine protistan lineage, Environmental microbiology, 10(6), 1621-1634. |  | 2008 |

# Presentations

|  |  |  |
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| * Ashton, A. D., et al. (2011), Characteristic Timescales of Shoreface Response to Sea-Level Rise, paper presented at American Geophysical Union, San Francisco. |  | 2011 |
| * Ashton, A. D., and A. C. Ortiz (2011), Overwash controls coastal barrier response to sea-level rise, paper presented at Coastal Sediments, ASCE, Miami, FL. |  | 2011 |
| * Ortiz, A. C., et al. (2009), Investigating the Effect of Wave Energy on Sediment Characteristics of Vieques, Puerto Rico Using Real and Modeled Wave Data, paper presented at GSA, Portland, OR. |  | 2009 |
| * Ortiz, A. C. (2008), Fast Repetition Rate Fluorometry measuring effects of light quantity and quality on Micromonas, Monterey Bay Aquarium Research Aquarium, 22 Aug 2008. |  | 2008 |
| * Cuvelier, M. L., et al. (2006), Ecology of Picoeukaryotes in Open Ocean Environments, paper presented at Gorden Research Conference: Marine Microbes, Biddeford, ME. |  | 2006 |

# Teaching Experience

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| --- | --- | --- |
| * Teaching Assistant. Computation for the Sciences. MatLab Programming. |  | 2009-2010 |
| * Tutoring Geosciences Courses. |  | 2007-2010 |
| * Tutoring Latin & Classical Civilizations. |  | 2008-2010 |

# Awards/Funding

|  |  |  |
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| * NSF-GRF. Honorable Mention. Investigating Barrier Island Evolution with Accelerated Sea Level Rise using an   Alongshore-Coupled Morphodynamic Model |  | 2011 |
| * Cum Laude. Wellesley College. |  | 2010 |
| * Geoscience Department Honors. Wellesley College. |  | 2010 |
| * Howard Hughes Medical Institute Grant. Wellesley College. |  | 2009 |
| * Dean of Wellesley College Student Research Travel Grant. Wellesley College. |  | 2009 |
| * Annabel Boyce James Fund. Wellesley College. |  | 2009 |
| * Northeastern Geological Society of America Undergraduate Student Research Grant. |  | 2009 |
| * Sara F. Langer Memorial Award in Geosciences. Wellesley College |  | 2009 |
| * Academic Achievement Award. Wellesley College. |  | 2009-2010 |
| * Moore Foundation Fellowship. Dr. Alexandra Worden. MBARI. |  | 2008 |

# Affiliations/Memberships

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| --- | --- | --- |
| * American Geophysical Union (AGU). |  | 2012-Present |
| * Geological Society of America (GSA). |  | 2009-Present |
| * Association for Women Geoscientists (AWG). |  | 2009-Present |
| * National Postdoctoral Association (NPA). |  | 2011-Present |
| * Sigma Xi. |  | 2010-2011 |
| * Coastal List Serve. |  | 2011- Present |
| * Earth Science Women’s Network |  | 2011-Present |

# Work Experience

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| * Linux System Administrator. Wellesley College. |  | 2009-2010 |
| * Student Manager IT Help Desk. Wellesley College. |  | 2007-2010 |

# Interests

Coastal Geomorphology

Numerical Modeling

Fluvial Ecogeomorphology

Coastal Sedimentology

# Skills

Computer: Proficient in Microsoft Office, Matlab, and Java Programming. Experience in Adobe S3, Ftp, Terminal, GIS, and Stella. Proficient in Mac, Windows, and Linux operating systems.

Languages: Proficient in Spanish, Italian, and Latin

Other: International residency, extensive travel, backcountry hiking and camping.