

# Angelia Miller

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## Education

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**Master of Science in Marine Science and Technology**  
University of Massachusetts Dartmouth, Dartmouth, MA

August 2021- Present

**Bachelor of Arts in Environmental Science and Policy**  
Hood College, Frederick, MD

2015

## Work Experience

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**Research Assistant / Technical Associate**

May 2021 – Present

*University of Massachusetts Dartmouth, Dartmouth, MA*

- Assist with the planning and development of the Survey Simulation Experimentation and Evaluation Project (SSEEP) to assess and mitigate impacts on the National Oceanic and Atmospheric Administration (NOAA) Northeast Fisheries Science Center's (NEFSC) Multispecies Bottom Trawl Survey and its data products. Activities include:
  - Facilitate a series of stakeholder workshops to identify potential modeling scenarios and research questions of interest to be investigated.
  - Generate summary statistics based on the historical time-series data collected through the Multispecies Bottom Trawl Survey.
  - Prepare technical documents, workshop reports, and modeling frameworks.
  - Create visual and interactive tools for scientific communication, and stakeholder and public engagement.
- Investigate applications of the WHAM model to the Gulf of Maine Atlantic cod stock assessment data and evaluate its performance for estimating natural mortality as a part of the NEFSC's State Space Research Track Assessment and Working Group.

**Part-time Administrator**

May 2021 – Present

*Frederick County Government, Frederick, MD*

- Administered the Illicit Discharge Detection and Elimination (IDDE) program to identify and eliminate cases of stormwater pollution.
- Coordinated the permit requirements for County-owned facilities operating under Maryland's General Discharge Permit for Stormwater Discharges Associated with Industrial Activity.
- Provided consultation and guidance as needed to the succeeding Project Manager.

**Project Manager**

January 2017 – May 2021

*Frederick County Government, Frederick, MD*

- Oversaw the IDDE program and the permit requirements for County-owned facilities operating under Maryland's General Discharge Permit for Stormwater Discharges Associated with Industrial Activity.
- Technically analyzed consultant data for the Frederick County Stream Survey Program to assess the overall health of the County's watersheds through biological and chemical stream sampling protocols.
- Reviewed engineering designs for stream restoration projects and model stormwater scenarios to achieve Wasteload Allocations and twenty percent restoration goals towards the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit.
- Integrated field forms and streamlined field team protocols using ESRI Geographic Information Systems (GIS) applications to maintain the NPDES geodatabase and to increase data collection by 50 percent.

**Chesapeake Conservation Corps Member**

August 2015 - August 2016

*Chesapeake Bay Trust, Annapolis, MD*

- Built and implemented a commercial and industrial facility survey protocol for Frederick County's IDDE program.
- Modeled baseline and restoration scenarios for Frederick County to meet Total Maximum Daily Loads (TMDLs) goals using Maryland and Chesapeake Bay models (MAST and BayFAST), and Watershed Treatment Model v.2013.

**Aquarist/Intern**

January 2015 – May 2015

*Baltimore National Aquarium, Baltimore, MD*

- Performed daily husbandry tasks of four exhibit tanks and eight back-up tanks.
- Administered daily dietary needs.

**Intern**

January 2013 – May 2013

*Friends of Frederick County, Fredrick, MD*

- Surveyed the health of local county streams
- Oversaw public outreach and engagement

**Research Experience**

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Cloud S, Macer J, **Miller A**, and Wobbleton D. (2014). Assessment of Water Quality of Carroll Creek Wildlife Park.

**Miller A**. (2013). The Effects of Gibberellic Acid on the Growth of Two Strains of *Brassica rapa*.

**Miller A**. (2013). Effect of Temperature on the Enzymatic Activity of Lima Bean Mitochondria.

**Presentations**

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**Miller A**, Fay G, Politis P, Lipsky A, O’Keefe C, Guyant M, Roman C, Ford K, Foley C. 2022. Visualizing historical time series data in the presence of proposed offshore wind development areas to understand the potential impacts to a fishery-independent multispecies trawl survey. ICES Annual Science Conference. Dublin, Ireland

**Miller A**, Fay G, Politis P, Lipsky A, O’Keefe C, Guyant M, Roman C, Ford K, Foley C. 2022. Survey Simulation Experimentation and Evaluation Project (SSEEP): Evaluating impacts of offshore wind to the Northeast bottom trawl surveys. ICES WKUSER2. Galway, Ireland.

Fay G, Politis P, Lipsky A, O’Keefe C, **Miller A**, Guyant M, Roman C, Ford K, Foley C. 2022. Survey Simulation Experimentation and Evaluation Project (SSEEP) Stakeholder Workshop #2. Virtual.

Fay G, Politis P, Lipsky A, O’Keefe C, Rago P, **Miller A**, Ford K, Foley C. 2021. Survey Simulation Experimentation and Evaluation Project (SSEEP) Stakeholder Workshop #1. Virtual.

**Miller A** & Wilusz D. 2020. Pluvial Flooding Vulnerability Assessment in Clover Hill, Frederick, MD. Chesapeake Water Environment Association. Virtual.

**Miller A** & Wilusz D. 2020. Pluvial Flooding Vulnerability Assessment in Clover Hill, Frederick, MD. Maryland Association of Floodplain and Stormwater Managers. Virtual.

**Miller A**. 2020. Frederick County’s Stormwater Illicit Discharge Detection and Elimination Program. Interstate Commission on the Potomac River Basin. Rockville, MD, USA.

**Miller A**. 2015. Visual Survey Development for the Illicit Discharge Detection and Elimination Program. Chesapeake Watershed Forum. Shepherdstown, WV, USA.

**Miller A** & McIver L. 2015. The How-To’s of Rain Gardens: Design, Installation, and Maintenance. Green Neighbor Forum. Frederick, MD, USA.

**Grants**

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*Maryland Department of Natural Resources*, Restoring Frederick County Streams Utilizing Capital Improvement FY20-21 Funds, \$530,000 *July 2020*

*Chesapeake Bay Trust*, Chesapeake Conservation Corps Program *July 2020*

*Chesapeake Bay Trust*, Riparian Buffer Planting at Frederick County Park, \$1,240 *August 2019*

*Maryland Urban and Community Forestry Committee*, Riparian Buffer Planting at Frederick County Park, \$1,373 *May 2016*

## **Leadership Activities**

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Hood College Women's Soccer Team Captain	January 2014 - December 2014
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## **Awards/Honors**

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Fall MAC Sportsmanship Team	August 2014 - December 2014
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Dean's List	August 2014 - December 2014
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Fall MAC Academic Honor Roll	2012 - 2014
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Honors' Program	August 2011 - May 2015
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## **Skills**

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R/RStudio

ESRI ArcGIS Suite

Microsoft Suite