Pumped for Plankton: Diving Deeper into the Lives of Meroplankton
Aubrey Smith, Montclair State University

Plankton makes up most of the biomass in all bodies of water, but it can easily go unnoticed to the naked eye. From mid-June to Labor Day, Creature Features run 10 times a week at The Wetlands Institute (TWI), each highlighting a different animal group with live animals and related educational materials. One of these features focuses on plankton, specifically holoplankton, which spend their entire lives as plankton. Many of the animals in the Secrets of the Salt Marsh Aquarium are meroplankton, organisms who only spend a part of their life as plankton. The Plankton Creature Feature will extend its focus more on meroplankton, to match the animals present in the Aquarium.

This update includes two main components. First, the presentation will be revised to expand the meroplankton section, adding slides on crabs, horseshoe crabs, fish, and sea stars plus the addition of a short quiz to guess whether the plankton is meroplankton or holoplankton, to help keep the audience engaged. Other expansions to the presentation are examples of a plankton tow which show what is found in the water near TWI. As well as updating all the speaker notes to make the information easier for future presenters to access and deepen their understanding of the topic. To enhance the educational materials, different life cycle diagrams will be made to compliment the bins of animals. The different parts of the diagram will be drawn and then put together in Canva, a graphic design software.

Why You Should Care: A Documentary Encouraging Young People To Make A Difference In Our Natural World
Wiley Koskinen, Goucher College

There is a rapidly expanding climate crisis that continues to grow worse. This unfortunately discourages young people from getting into the conservation field, as many believe there is no hope for a green future. The Wetlands Institute (TWI) educates and encourages people of all ages to care about coastal ecosystems and the animals that live in them through research, conservation, and education. However, many programs cater to younger children and adults. Older children, teenagers and young adults may require a different approach to education.

Why You Should Care is a participatory video documentary that showcases part of the work done at TWI, and how young adults can contribute to conservation efforts. Specifically, it highlights the research and conservation work of the Coastal Conservation and Research Program Interns as well as the Environmental Education Interns and their various public programs: Salt Marsh Safaris, Aquarium Feedings, Creature Features and Catch of the Days, and both sets of interns' individual projects. This is done through recorded interviews and footage collected over the course of the internships and edited in Adobe Premiere Pro 2025 in the style of a modern professional documentary. The interviews inspire different approaches to the conservation field, as well as encourage young people who are looking to do more for the environment in a way that shows the real stories of those working at TWI. The final cut will be around 20 minutes in length, and is intended to leave viewers with a lingering sense of hope and urgency about protecting our natural world.

The Science of the Tide: Physical and Chemical Changes in the Wetlands

Alyssa Margerum, Kutztown University

As you walk along the Salt Marsh Trail it may look different every time. As the tide rises and falls, what is seen on the trail changes as well. Beyond the visible changes there are also important changes happening below the surface. Many of the programs here focus on the biological side of the wetlands, the plants and animals that can be observed, but the chemical changes influenced by the tide are equally as important for maintaining the health of the soil, plants, and wildlife.

There are multiple components to this project. The first component involves a tank in the Secrets of the Salt Marsh Aquarium that will fluctuate in water level to show what it looks like during high versus low tide, done in collaboration with Aquarist/Environmental Educator Abbygale Liles. Behind this tank there will be a series of posters that talk about the chemical changes that occur in the water as the tide changes. The second component of this project is a tri-panel poster that will go behind the Aquarium Teaching and Touch Tank. This poster will discuss the biological and chemical differences between high and low tide as well as the impact climate change has on the tide. The final component of the project will be an interactive bitmoji space for the Virtual Wetlands Experience to explore components of the marsh through links that lead to activities, videos, and other information. PowerPoint will be used to make both the physical and virtual components of the project.