

The Joint Standing Committee on Education and Cultural Affairs
Testimony from Katherine A. Allen, Associate Professor, University of Maine

In Support Of

L.D. 1389

An Act to Establish a Mobile Learning Lab

20 April 2023

Senator Rafferty, Representative Brennan, and distinguished members of the Education and Cultural Affairs Committee, my name is **Katherine A. Allen, Associate Professor at the University of Maine**. Thank you for the opportunity provide written testimony in support of L.D. 871, An Act to Provide Support for Maine Discovery Museum's Informal Science, Technology, Engineering and Mathematics Education Throughout the State. *The following views expressed are my own and are not intended to represent those of the University of Maine in Orono or the University of Maine System.*

I am a Mainer, a mother, a scientist, and a science educator. In my work, I am driven not only by a natural curiosity about our planet, but also by the urgent need to address modern environmental change and ensure a vibrant, healthy future for my four-year-old daughter.

In recent years, the Maine Science Festival has played a pivotal role in my ability to share my ocean and climate research with the public. As a scientist, I have raised over a million dollars in federal funding for research at the University of Maine, and one key objective of that work is to broaden participation in the fields of Science, Technology, Engineering, and Mathematics (STEM). In 2020, the global pandemic stymied my local public education and outreach program by making it unsafe or impractical to connect with K-12 teachers, visit classrooms, and interact with people in person. My team had to pause and rethink many of our plans.

In 2022, I had the incredible opportunity to participate in the Maine Science Festival's headliner event called *The Warming Sea: An exploration of hope in the face of the climate crisis*. The large audience at the Collins Center included students, friends, neighbors, legislators (including Governor Janet Mills), and my own family, including my daughter, who was 3 years old at the time. I shared video clips from a recent oceanographic expedition that I had led in the Gulf of Maine in 2021, had a conversation with other panelists about planetary and societal issues, answered questions from the audience, and finally heard the world premiere of a symphonic piece that definitively demonstrated the universal power of synthesizing science with the arts. After enduring two grueling years of pandemic-induced challenges and isolation, *The Warming Sea* event was profoundly rejuvenating for me both professionally and personally. It also sparked new connections and ultimately led to a creative solution to a problem that my team had been grappling with for quite a while.

The ocean covers about 70% of Earth's surface, but it is logistically and financially challenging to physically bring K-12 students, teachers, and members of the broader public out to sea to learn

about the ocean. This is one of the fundamental limitations that I face as an oceanographer who also strives to inspire the next generation of scientists and to share her research with other members of society.

My research and outreach team at the University of Maine consists of undergraduate students, graduate students, and faculty. We had been struggling to find an appropriate venue for what we'd envisioned as a virtual field trip – a way to share the experience of doing research at sea without physically putting people on a ship. The breakthrough for us was connecting with folks at the Maine Discovery Museum, which catalyzed our outreach work and gave us an opportunity to connect with a wide audience.

In 2023, my research and outreach team created a mini docuseries featuring our recent research in the Gulf of Maine. We shared it for the first time with a local audience at the Maine Science Festival event at the Cross Insurance Center in Bangor. The room was packed with people of all ages – kids from my daughter's preschool class, local K-12 students, their parents and teachers, members of the community who just showed up out of curiosity. I was asked questions about what it's like to work at sea, whether I've ever seen a kraken (not yet ...), and how citizen-scientists might get involved in this work. Local teachers inquired about the potential for class visits; students asked about graduate school opportunities; kids took home real rocks and fossils to share with their friends.

My team's outreach event was made possible and successful by the infrastructure, support, advertising, and strong attraction of the Maine Science Festival.

The Maine Science Festival, and specifically the Maine Discovery Museum staff's underlying expertise, local connections, and resources that make it possible, is such an important resource to the state of Maine. They are major catalysts for action and education. They have a unique ability to connect scientists and other community members. They fill what would otherwise be a major gap in terms of providing local opportunities to learn about science outside of the classroom.

Many of my future outreach and education plans – a required component of grants awarded by the National Science Foundation – now hinge on the Maine Science Festival's continued operation. I hope that you will support L.D. 871, which would provide funding to support the essential work carried out by the Maine Discovery Museum and its incredibly dedicated staff.

Sincerely,



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