

Testimony to the Joint Standing Committee on Marine Resources

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Thank you, Debbie. And, thank you, Senator Miramant, Representative McCreight, and distinguished members of the Joint Standing Committee on Marine Resources.

My name is Heather Leslie and I live in Newcastle. I am director of the University of Maine's Darling Marine Center, in Walpole.

The Darling Center is the University's marine laboratory. For the last 55 years, the Darling Center has supported Maine coastal communities by conducting research, training new and established professionals, and working with wide variety of public and private sector partners. Our mission is to connect people to the ocean by generating and sharing knowledge of coastal and marine ecosystems and the people who are part of them. Our scientists helped to develop the strains of oysters best able to thrive in Maine's cold waters. As part of the network of UMaine facilities Debbie just described, we established the first federal aquaculture experiment station in the nation. As the home of the UMaine Lobster Institute, we work directly with fishermen to understand the changing numbers of lobsters on the ocean bottom and in people's traps, and what the future holds. UMaine scientists and partners – including the Maine Department of Marine Resources and Southern Maine Community College – are documenting how the biology and chemistry of Maine's ocean is changing and what that means for farmed shellfish, one of the most rapidly growing seafood sectors in our state.

These activities have continued during the pandemic. I wanted to highlight one statewide partnership that is particularly important for our marine economy and local communities, the Maine eDNA project. This project involves more than 12 research, education, government and community development institutions throughout Maine – as well as a number of the Maine Technology Institute and private sector - and has catalyzed investment in workforce development, commercialization and innovative K-12 education.

eDNA is short for 'environmental DNA.' Environmental DNA is the genetic material left by living organisms as they swim, burrow and float through Maine waters. We are working from the headwaters to the open ocean, to study how eDNA can be best used to help support marine resource management decisions and to unlock the mysteries of our fresh and saltwater ecosystems.

The University of Maine, together with Bigelow Laboratory for Ocean Sciences, is leading this five-year project. The Darling Marine Center serves as a hub for much of the scientific diving and boat-based research critical to this project. And, thanks to our location, just three miles upriver from Bigelow, our scientists and students have been able to continue to work and study and learn, even with the challenges created by COVID-19.

We are developing, testing and applying cutting edge genomic and ecological science in ways that inform fisheries management and public health. Together with scientists at the Maine

Department of Marine Resources and other state and federal agencies, we are tracking the return of alewives and salmon to Maine waters, investigating the expanding activities of great white sharks, and gaining new knowledge of the patterns and consequences of harmful algal blooms in Maine lakes, streams, rivers and coastal waters.

Our state has one of the largest, most geographically extensive groups of marine scientists in the Gulf of Maine region. I am grateful to be part of such a powerful network and also appreciative of the Legislature for their continued investment in research, education and workforce development, at the Darling Marine Center and throughout our state. Thank you.

Now, though, I am delighted to introduce my colleague, Jake Ward. Jake is Vice President for Innovation and Economic Development at the University of Maine. Jake...