

New aquaculture research highlights areas of consensus, disagreement

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Clarks Cove, Walpole. The Maine Department of Marine Resources issued the first aquaculture lease to Ed Myers of Walpole to grow mussels in Clarks Cove in 1973. The cove continues to be an important sea farming site today, nearly 50 years later. Credit: H. Leslie

Aquaculture creates many benefits for Maine people, including fresh seafood, stable jobs, and opportunities to enhance tourism, environmental conservation and community resilience. And, like all

working waterfront activities, aquaculture operations occupy ocean space and are part of the busy coastal environment that we call home.

People have varied perspectives about aquaculture and the future of the industry in Maine. University of Maine scientists Melissa Britsch, Heather Leslie and Joshua Stoll explored these perspectives in a recently published article in the journal *Marine Policy*.

"We wanted to understand the diversity of views people hold about aquaculture in Maine," Britsch says. "What are people hopeful about? What concerns them? And most importantly, where is there common ground?"

The research team found that there is broad support for aquaculture development in Maine, but that different people prioritize different aspects of the industry. They identified four distinct perspectives—views that are not necessarily compatible, but also not always in opposition. All four perspectives support economic diversification in coastal Maine, but they disagree about who should and will benefit from further development.

For example, some people focus on benefits to individuals, whereas others focus on the benefits and costs to coastal communities.

The four perspectives identified by the researchers:

- aquaculture optimists, who believe that aquaculture development in Maine is a win-win for industry members and others who live and work on Maine's coast.
- aquaculture anchors, who are enthusiastic about aquaculture and view it as a way to support Maine's coastal economy. However, they are concerned about the potential for negative environmental impacts and want to ensure that benefits from

aquaculture are anchored in coastal communities.

- aquaculture historians, who see the potential of further marine aquaculture development in Maine, but are cautious about the associated socioeconomic benefits that it affords coastal communities.
- aquaculture agnostics, who have mixed feelings about the impact of aquaculture on Maine's coast. They see aquaculture as benefiting aquaculture industry members but believe that further growth will involve economic and spatial tradeoffs between aquaculture farmers and other users of Maine's coast, like commercial fishermen. They also believe that increased aquaculture development will reduce available space in Maine's coastal waters for commercial fishing, displacing fisheries and other marine uses of Maine's coast while having limited benefits for coastal residents generally.

"Given opposition to some recent specific project proposals, it is striking how broad support for aquaculture is in Maine, based on our study," says Stoll.

While information on the environmental impacts of aquaculture has been gathered for decades in Maine and elsewhere, relatively little social science research has been conducted. The team conducted the [social science research](#) with the aim of contributing to more transparent and inclusive visioning efforts and dialog about the future of aquaculture in Maine.

"Ultimately, managing coastal environments means managing the people who live and work in different ways in these places—places that are valuable to so many, for so many different reasons," says Maine Sea Grant director Gayle Zydlewski. "Understanding those reasons in a systematic fashion—like what has been done through this project—can help support communities and the state as they make strategic decisions

about aquaculture development."

The research was part of Britsch's graduate work at the University of Maine, where she was recently awarded dual master's degrees in marine biology and marine policy. As part of the study, Britsch interviewed people statewide who are knowledgeable about Maine's aquaculture industry and asked them to rank statements about the industry based on their agreement or disagreement with them. All participants ranked the same statements, which were drawn from a synthesis of published views about [aquaculture](#) in Maine over more than 20 years. People with similar rankings were grouped, resulting in four distinct perspectives. The perspectives were described based on interviews with the participants as well as the results of the ranking exercise.

Britsch is originally from southern Oregon and moved to Maine because of UMaine's marine science program, and specifically to work at the Darling Marine Center in Walpole. Her graduate program, where she studied both the environmental and human dimensions of coastal marine ecosystems, helped to support her work, as did her earlier experiences working with Maine Sea Grant and scallop farmers out of the Darling Marine Center in Walpole. Britsch also worked for a business incubator client, Maine Shellfish Developers, during its early operations in Walpole.

"This research and my graduate degree experience more broadly helped me appreciate how complex ocean use is in coastal Maine. Understanding these dynamics and the opportunities and challenges that they create for coastal communities is particularly important as communities prepare to adapt to climate change," Britsch says.

More information: Melissa L. Britsch et al, Diverse perspectives on aquaculture development in Maine, *Marine Policy* (2021). [DOI: 10.1016/j.marpol.2021.104697](https://doi.org/10.1016/j.marpol.2021.104697)

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