

# Aquaculture in Maine: Four Perspectives

## Summary of Results

Maine's aquaculture industry is growing, yet perspectives about its benefits to the state are a source of debate. Our research provides empirically grounded information to define these perspectives and clarify areas of agreement and disagreement between them. Our goal is to bring data to ongoing discussions about aquaculture's current and future trajectory. The 36 study participants involved in this research were selected because they were knowledgeable about Maine's aquaculture industry and represented diverse perspectives. They included scientists, managers, industry members, commercial fishermen, industry representatives, and landowners, including people who have expressed concern about aquaculture development in Maine. The study was designed identify the full range of perspectives about Maine's aquaculture industry, **which includes four key perspectives**. Please see the reverse page to learn about our methods.

### Aquaculture optimists:

The "optimist" believes aquaculture development in Maine is a win-win; they see Maine's untapped potential and investment in aquaculture as a catalyst for jobs and an important way to diversify the economy and maintain marine infrastructure. They believe aquaculture benefits the working waterfront and commercial fishing sectors.

### Aquaculture anchors:

The "anchor" is enthusiastic about aquaculture and views it as a way to support Maine's coastal economy. However, they are concerned about the long-term trajectory and potential negative environmental impacts and want to guarantee that benefits are anchored in coastal communities. They value community planning and participation.

### Aquaculture historians:

The "historian" sees potential for aquaculture, but is more tempered about its socioeconomic benefits. This perspective is informed by the history of salmon aquaculture and the narrative that it would bring prosperity to eastern Maine. They are skeptical of aquaculture's benefits for the commercial fishing sector and coastal communities.

### Aquaculture agnostics:

The "agnostic" has mixed feelings about the impact of aquaculture. They see aquaculture benefiting industry members, but believe that further growth will involve tradeoffs. They believe increased development will reduce space for commercial fishing and other uses of Maine's coast, while having limited net benefits.

## Conclusions & Next Steps

This study establishes a baseline regarding the diverse perspectives about aquaculture development in Maine and articulates areas of agreement and disagreement. The four perspectives represent different values and assumptions about aquaculture and its role in Maine. Participants agree that it could provide economic benefits, but disagree about how the benefits will be distributed, how aquaculture should be implemented, and what impacts aquaculture will have on other uses of Maine's coast. Understanding these perspectives helps identify common ground among groups and explain existing points of conflict. Addressing the underlying assumptions and differences between these groups can help facilitate dialogue about the current and future role of aquaculture. **Note that our study did not enable us to describe the relative dominance of one perspective vs. another.** The results of this study will be used in a future large-scale survey designed to describe the distribution and frequency of these perspectives in Maine. We welcome feedback about our results, and how best to share them.



Photo credit: H. Haverkamp (2019)

### Contact Information

**Graduate student lead:** Melissa Britsch  
melissa.britsch@maine.edu

**Advisors:** Heather Leslie & Joshua Stoll  
heatler.leslie@maine.edu,  
joshua.stoll@maine.edu

# Aquaculture in Maine: Four Perspectives

## Summary of Results

**Table 1:** Results of our study draw on the Q-method, a quantitative approach used to study subjective perspectives. Participants agreed most strongly with statements scored 5, and most strongly disagreed with statements scored -5, and the weighted group averages are reported in the table below. *Gap* indicates the difference in agreement among the groups for each statement. Smaller gaps indicate relative consensus, while larger gaps indicate higher levels of disagreement. The statements and scores show areas of agreement and disagreement between groups, helping identify areas for collaboration and interpret and address points of tension.

#	Statement	Key Perspectives				
		F1	F2	F3	F4	Gap
1	Tax-incentive programs intended to bring aquaculture development to Maine will minimize the benefits to local communities	-2	1	2	-3	5
2	Waterfront landowners are the only people opposed to aquaculture	-3	-5	-2	-3	3
3	The ability to participate in aquaculture should be reserved for commercial fishermen	-5	-3	5	-4	10
4	The large maximum size and transferability of aquaculture leases makes them attractive to sell	-1	2	5	0	6
5	The noise from aquaculture operations makes them undesirable to be around	-3	1	-3	1	4
6	Once established, local aquaculture farms gain acceptance with time	1	-1	1	-2	3
7	Maine's proximity to major US consumer markets benefits the aquaculture industry	1	0	1	-2	3
8	Maine is an excellent place for aquaculture because it has clean, cold waters and a wide open coastline	2	2	-4	-1	6
9	Producing food using aquaculture contributes to a lower carbon profile than other food production methods	0	-1	-2	-3	3
10	Aquaculture is a sustainable way for Mainers to make a living	2	-2	-1	2	4
11	Small-scale aquaculture is appropriate for Maine	0	3	4	-1	5
12	Aquaculture is a polarized topic in Maine	0	2	0	2	2
13	The presence of aquaculture lowers the value of waterfront homes	-3	-1	4	3	7
14	Aquaculture offers the state's fishing industry much needed economic and species diversification	3	-3	0	5	8
15	Aquaculture provides an opportunity for people to work in Maine's marine economy	3	0	1	3	3
16	Increasing the amount of aquaculture in Maine will negatively impact the ability of commercial fishermen to fish by pushing them out of traditional fishing grounds	-4	3	3	4	8
17	Aquaculture is complementary to commercial fishing, not a threat	2	-3	-5	0	7
18	Aquaculture has a presence in Maine, but the question of who it will benefit remains unanswered	-1	2	0	-4	6
19	Aquaculture is environmentally sustainable	3	-2	-5	0	8
20	Aquaculture is a solution to overfishing because it helps augment wild capture fisheries	0	-2	-2	-2	2
21	Aquaculture allows for a consistent supply of local, high-quality seafood	1	0	1	4	4
22	We need new fisheries and creative methods of fishing to sustain the industry and the infrastructure, and aquaculture is one way to do this	4	0	2	3	4
23	Aquaculture is an important and compatible element in Maine's diverse coastal economy	5	-1	2	3	6
24	There is room for growth in aquaculture at a scope and scale that fits with Maine's working waterfront	4	1	3	0	4
25	Aquaculture helps preserve Maine's working waterfronts	5	-2	-2	2	7
26	Aquaculture is one of the most promising sectors in Maine's economy	1	-2	0	-2	3
27	Aquaculture provides valuable economic opportunities for local residents	3	1	1	1	2
28	Regulatory uncertainty lowers investment in the aquaculture industry	-1	0	-1	1	2
29	Increasing aquaculture production in Maine will help lower the US seafood trade deficit	0	-1	-1	-4	4
30	Aquaculture is an efficient and sustainable way to feed a growing human population	1	0	-3	1	4
31	We need to further consider how much of a particular body of water is to be taken from the public and given to an individual or corporation for commercial use in the future	0	4	4	2	4
32	Aquaculture is a way to provide economic support to Maine's coastal communities, but there is a risk that farms will be bought out by foreign companies	-1	2	-3	-1	5
33	Aquaculture causes far-reaching changes to common access waters	-4	5	-4	5	9
34	The potential environmental risks posed by aquaculture are being taken seriously	0	-4	2	-2	6
35	Concerns about the excessive expansion of aquaculture in the future are generally unfounded	-1	-4	-1	-5	4
36	Aquaculture has the potential to drastically alter the character of Maine's coastal communities	-2	4	3	2	6
37	It is vitally important that communities have a hand in guiding the future of aquaculture	1	4	3	0	4
38	The Department of Marine Resources' siting criteria do not account enough for adjacent farms and the cumulative impact of aquaculture	-2	3	0	-2	5
39	The early days of aquaculture were marked by trial and error, and little regard for the local environment and community impacts. That and other objectionable practices have changed	0	-3	-4	-3	4
40	Aquaculture is good for Maine's economy, not only for farmers but for local restaurants and tourism businesses too	4	0	-1	1	5
41	The rate of growth of the aquaculture industry is too fast	-3	3	2	-1	6
42	It has become more important than ever to find a balance between existing and new uses of our ocean while also protecting everything it has to offer for future generations	2	5	0	4	5
43	Maine's aquaculture regulatory process is hampering the growth of the industry	-1	-4	0	1	5
44	Maine's coastal communities need to decide whether to gear up for the economic growth of aquaculture or to retain the qualities of wild-caught fisheries	-4	1	-3	0	5
45	Much of the concern about aquaculture stems from misunderstandings about the application and companies, as well as a lack of knowledge about aquaculture in general	2	-1	1	1	3
46	Aquaculture production requires a choice between economic growth and environmental protection	-5	1	0	-1	6
47	There are very few conflicts between aquaculture farms and other water users	-2	-5	-1	-5	4
48	The effects of climate change will reduce the long-term impact of Maine's aquaculture industry on the economy	-2	0	-2	-1	2

### Key

- F1. Aquaculture optimists
- F2. Aquaculture anchors
- F3. Aquaculture historians
- F4. Aquaculture agnostics

Statements where the gap was seven or greater are highlighted in orange and statements where the gap was three or lower are highlighted in pink.

