

ADVOCATING FOR AQUACULTURE THROUGH SCIENCE CAFÉS AND OTHER EDUCATION EXPERIENCES

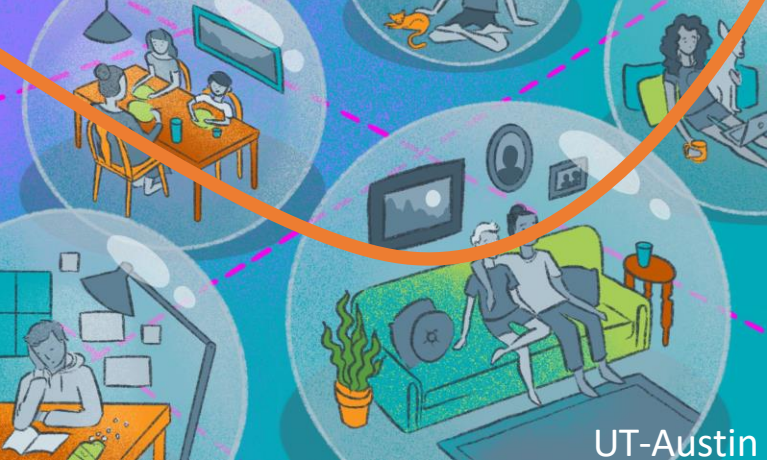
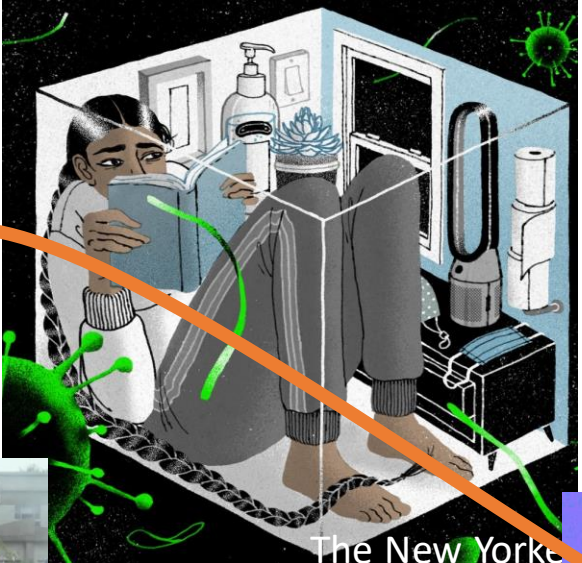
Theodore V. Willis

– Lake Champlain Sea Grant; Univ. of Southern Maine

Kate Holcomb

– General Manager Canopy Farms

A pandemic story...



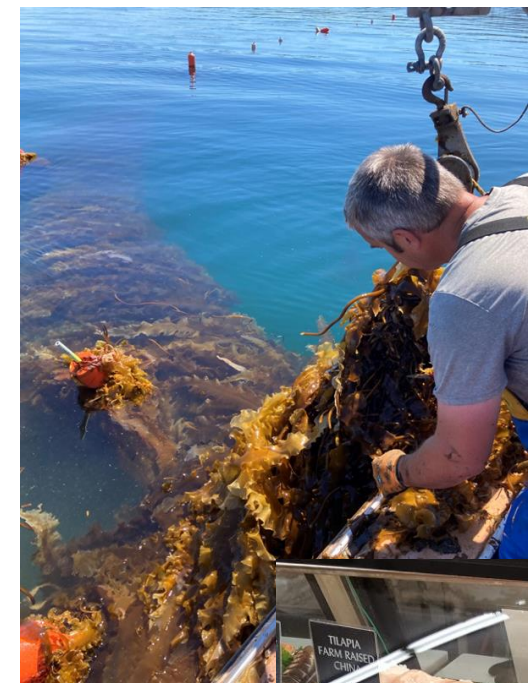
“How do I cook that?”

Most seafood consumers and non-seafood consumers do not feel knowledgeable about seafood

- Half of non-seafood consumers want to know different ways and methods to prepare seafood and how to gauge freshness and quality

Consumers of seafood make up 56% of the public (includes canned or pouched)

- 21% eat seafood two or more times a week (FDA recommendation)
- 35% eat seafood between 1x per week and 1x per month
- 75% or more of seafood consumers want to know different ways to cook and prepare, gauge freshness and quality, and what the different types and species are



The Power of Seafood 2019 report found that “the seafood establishment (grocers, restaurants, outlets) has missed the opportunity to educate the public about seafood again and again....”

EEBLUE Aquaculture Literacy Mini Grant by NAAEE and NOAA (2021-22) & SEA Maine Grant (2023)

- Provide informal learning institutions, aquaculture industry, and NOAA partners with support for the co-development of innovative educational experiences that explore aquaculture topics

Our Goals:

1. Increase aquaculture literacy and seafood consumption by bringing dinners to restaurants for seafood
2. Provide knowledge transfer and experience with products and practitioners



Objectives:

Build social capital by introducing consumers to the personal narratives of aquaculture producers

1. Convening “science cafes”

- Open interaction between aquaculture producers and the public
- Two part Sci-cafe with a public information night and a smaller cooking course
 - Science expert at each event; cooking night led by the restaurant’s head chef

2. Deliver producer personal stories and product narratives to middle and secondary school educators

- Provide specific invitations and continuing education unit offerings to middle and secondary school educators
- Half the Cooking class slots held for educators and subsidized by the grant
- Host tours for educators and school groups through the Canopy Farm Space



Key partner: BaoBao Group

Asian restaurant group located in Portland and Brunswick

- BaoBao Dumpling House (133 Spring Street, Portland)
- Tao Yuan Restaurant (Brunswick – reopening soon)
- Zao Ze Café and Market (5 Abbey Rd, Brunswick)
- Canopy Farms (5 Abbey Rd, Brunswick)
 - Hyperlocal farm-to-table establishment
 - 3500 sf greenhouse in downtown Brunswick located above Zao Ze
 - 4500-5000 gal fish capacity growing tilapia, hybrid striped bass and rainbow trout



Project Partners

Producers:

- October 2021: Mussels – Bang’s Island
- November 2021: Oysters – Emily’s Oysters
- December 2021: Fish – Canopy Farms
- March 2022: Scallops – Marsden Brewer
- June 2022: Clams – Freda Farm
- June 2022: Eel - American Unagi

Informal Learning Institution: Hurricane Island Center for Science and Leadership

- Curriculum standards guide and accredited continuing education contact hours
 - 13 teachers, 34 hrs awarded

Sea Grant Partner

- Dana Morse, Maine Sea Grant

Educators:

- Harpswell Coastal Academy (32 students, 4 adults)
- Brunswick High School (61 students, 11 adults)
- ME Academy of Natural Sciences (22 students, 3 adults)
- ME School Administrative District 52 (28 students, 2 adults)



Evaluation

QR code entry and exit surveys

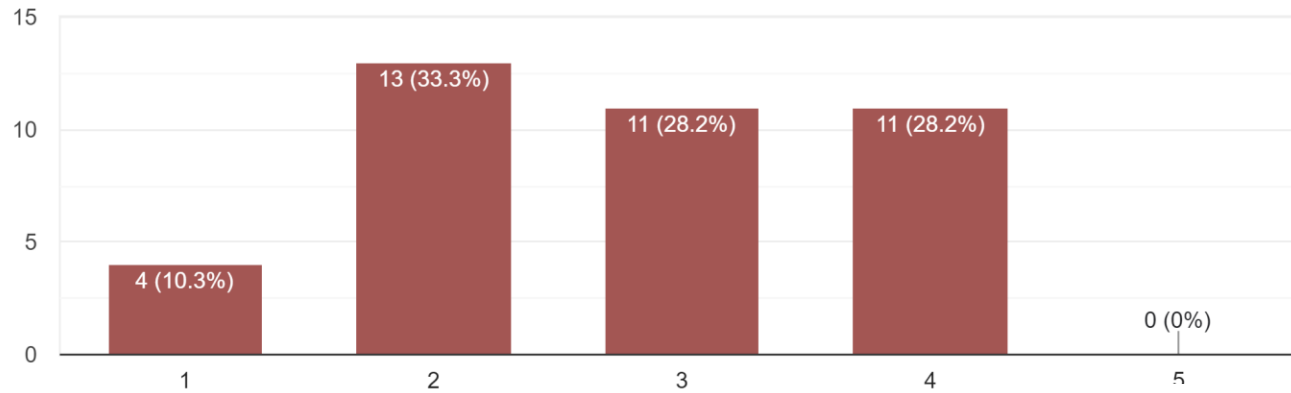
- Entry & Exit:
 - Rate your familiarity with aquaculture topics?
 - How likely are you to purchase aquaculture products?
- Expert Judge Framework questions (You are an expert on your experience) Einbinder 2015
 - Did you find the experience “Comfortable”, “Engaging”, “Reinforcing”, and “Meaningful”
 - Likert scale



Entry Results

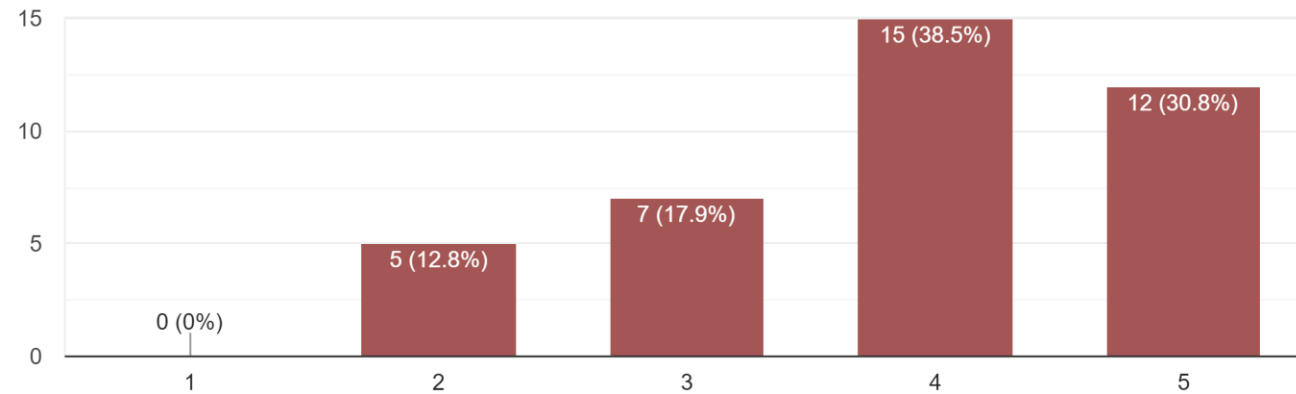
How familiar are you with aquaculture topics and issues?

39 responses



How likely are you to purchase aquaculture products?

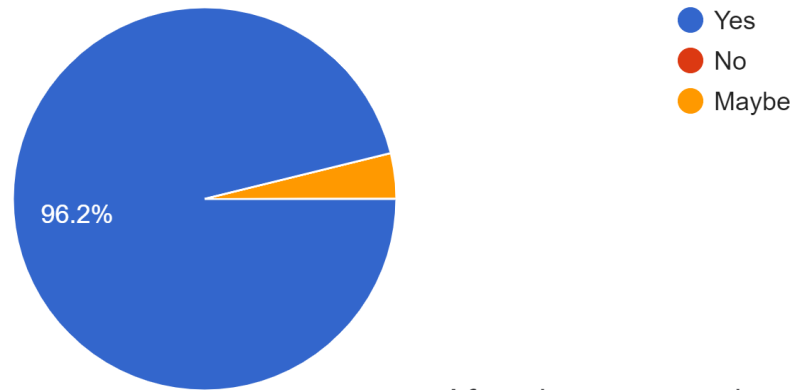
39 responses



Exit Results

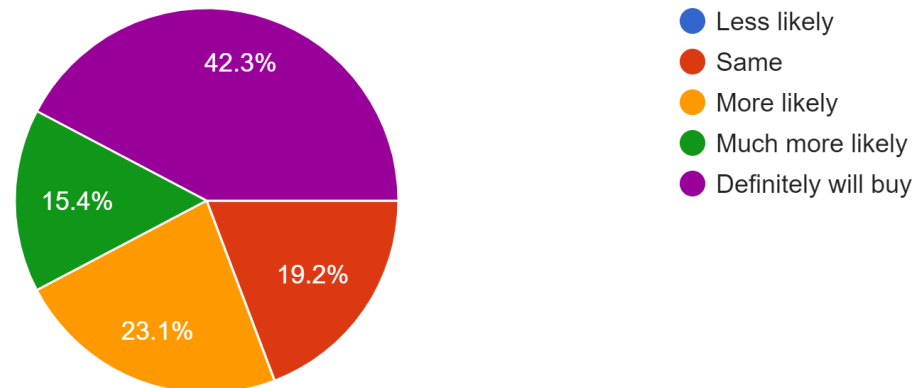
After the program, do you feel more familiar with aquaculture topics and issues?

26 responses



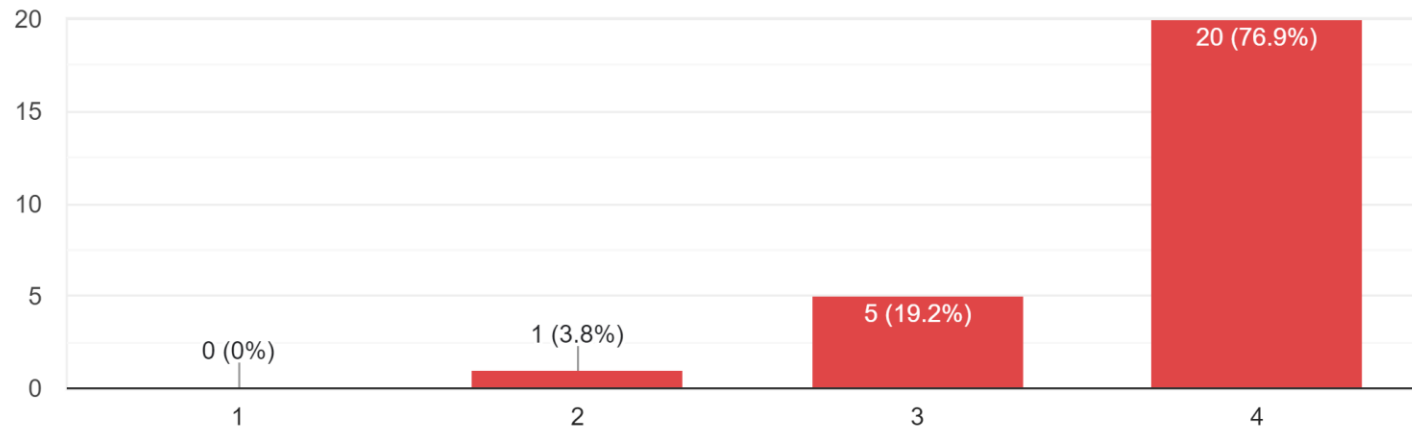
After the program, how likely are you to purchase aquaculture products?

26 responses



Exit Results: Expert Judge Review

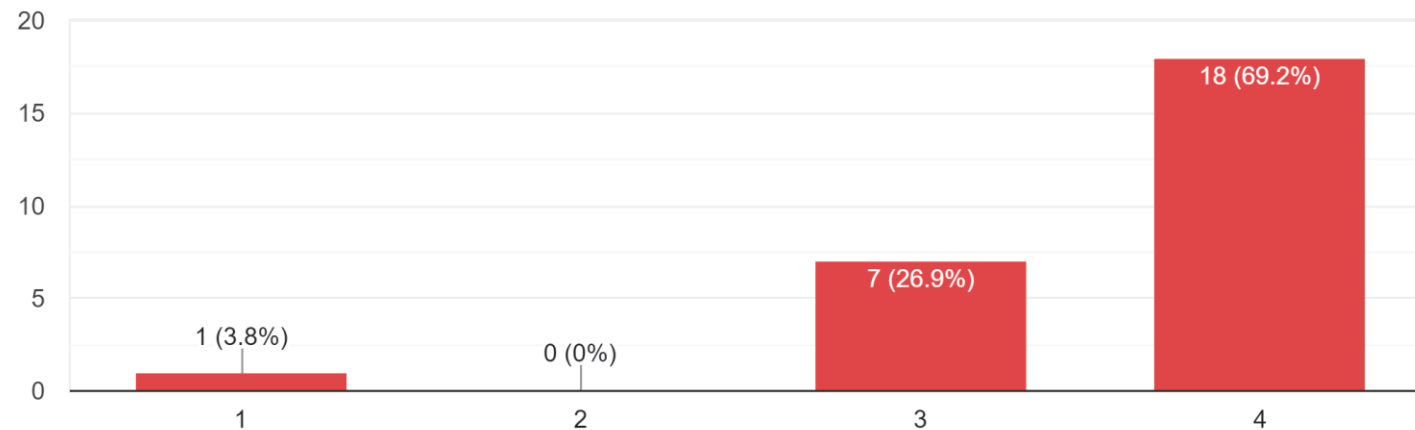
Was the Science Cafe COMFORTABLE? Did you feel comfortable physically and psychologically? Comfort opens the door to positive experiences and interactions.



Results: Expert Judge Review

Was the Science Cafe ENGAGING? Did the topic, presenters and discussion entice you to pay attention?

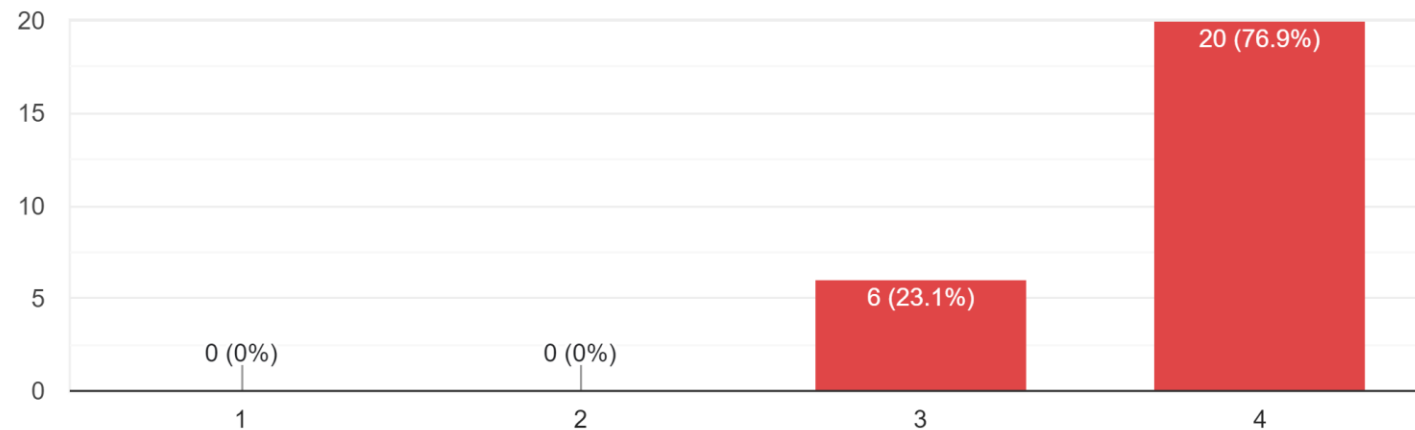
26 responses



Results: Expert Judge Review

Was the Science Cafe REINFORCING? Did the program feel like it had a focus, destination or coherent message/ theme?

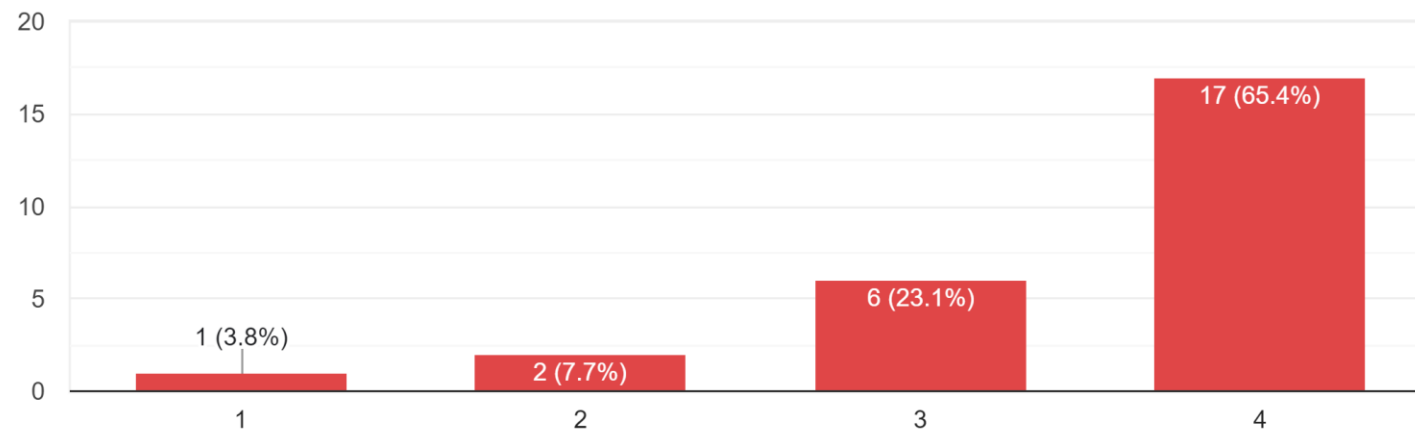
26 responses



Results: Expert Judge Review

Was the Science Cafe MEANINGFUL? Did the program cause you to reflect on or change your feelings, opinions or willingness to act?

26 responses



Feedback

“Over the following month, students applied what they learned at Canopy Farms by designing and constructing four aquaponics systems in our school.”

Mel Christensen Fletcher – Harpswell Coastal Academy

“Students were able to try various products grown, see the fish feeding the system, and even conduct PH tests on various water samples collected. All in all we definitely left more knowledgeable, and are better prepared for when we start our own aquaponics system at school in the not too distant future.”

Dan Entwistle – Brunswick High School

“It showed me the water testing for the fishes health is really important, and also how other ecosystems can support each other.”

Harpswell Coastal Academy student

“Seeing how aquaponics can have such a large impact on the planet and how you can have a large scale like that or a small scale like we have here.”

Harpswell Coastal Academy student

“I liked the emphasis on US aquaculture and how important it is to buy locally”

Sci-Café participant “meaningful” reflection

“I knew some about salmon aqua farming that this [is] bad for the environment. I also think that mussels and oysters are neutral or beneficial. However I didn’t even know scallops could be farm raised.”

Sci-Café participant “engagement” reflection

“Welcoming atmosphere, friendly greeting, delicious snacks, personable speakers.”

Sci-Café participant “comfort” reflection

“All speakers had a unified coherent message of environmental concern and food sustainability.”

Sci-Café participant “reinforcing” reflection

“I learned a lot and will advocate more for seafood aquaculture!”

Sci-Café participant “meaningful” reflection

